Mundy Township Parks and Recreation Plan 2008-2013



Charter Township of Mundy,
Genesee County, Michigan

DRAFT

PREFACE

This plan was prepared by students of the University of Michigan – Flint's Earth and Resource Science Department with technical support provided by the Center for Applied Environmental Research (CAER) at the University of Michigan-Flint.

The project was supervised by the Mundy Township Parks and Recreation Committee. The Committee is comprised of seven residents of the Charter Township of Mundy appointed by the Board of Trustees.

Mundy Parks and Recreation Committee

Gerrad Godley – Chairperson Michael Taylor
Fred Hensler Virginia Chatfield
Todd Regester (Vacant)
Karen Gawron

Mundy Township Board

Karen Bond – Supervisor

David Guigear – Treasurer

Rick W. Frost – Clerk

Fred Hensler – Trustee

Joe Oskey – Trustee

Planning Commission

Thomas D. Rathsack Phillip Holmblade
Gerrad Godley Tonya Ketzler
Betty Harrison Maria MacLean

UM-Flint Earth and Resource Science Team

John Bradburn
Mr. Conrad
Andy Hahn
Ryan Kuptz
Nicole Larkin
Rebecca Moore
Rick Sadler
Matt Wardynski
Gabriel Zawadzki
Dr. Richard Hill-Rowley
Leyla Sanker (CAER)

Acknowledgment

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Introduction

Purpose

Mundy Township is poised for increased residential and commercial development because of its rural location in southern Genesee County and its access to major transportation linkages to southeastern Michigan. In response to this situation, township residents have recognized the importance of developing a framework for parks and recreation planning to serve residents and maintain the open space required to protect the health of Mundy's community and environment.

Order of Elements

The Mundy Township Parks and Recreation Development Plan begins with a Community Description, that sets the scene in terms of location, climate, physical, and social characteristics of the community. The Administrative Structure is then described, as is the Planning Processes used in assembling this plan. A Recreation Inventory follows, explaining what recreation opportunities are already available to Mundy Township residents. The Survey Results are discussed, followed by a Natural Features and Resources Inventory, which outlines the foundations for the Open Space and Greenway Component of the plan. Recommendations follow, based on the gathered data and public input process. These recommendations are summarized in a series of Goals and Objectives. An Action Plan is included to outline steps to be taken that will begin implementing the Goals and Objectives in the plan. Finally, the Plan Adoption section includes resolutions documenting the plan's adoption by the Township Board

Community Description

Regional Setting

Location

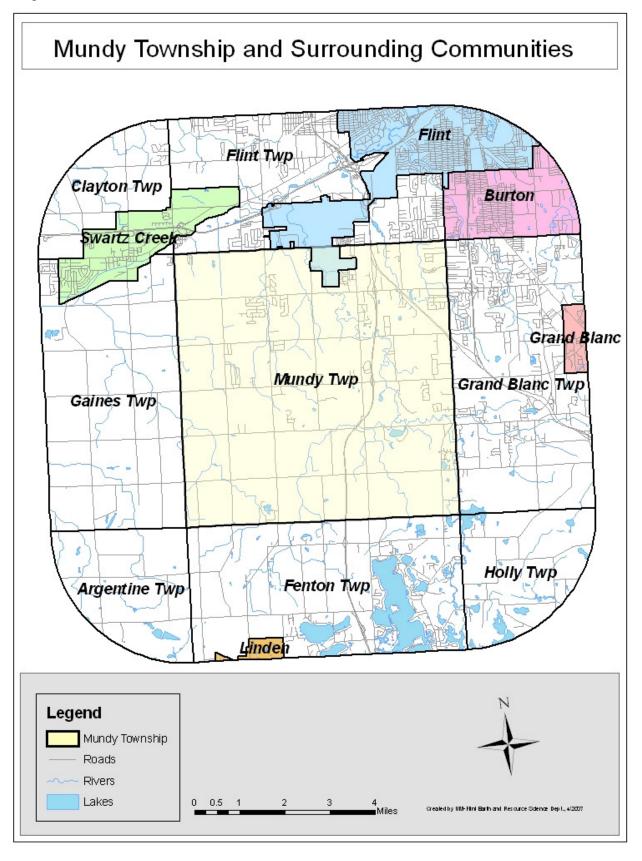
Mundy Township is located in southeast Michigan in the southern portion of Genesee County, immediately south of the City of Flint. It covers a land area slightly over 35 square miles, and is directly bordered by the townships of Clayton, Gaines, Argentine, Flint, Fenton, Grand Blanc, and Holly, as well as the cities of Burton and Flint. It is served by the Grand Blanc, Carman-Ainsworth, Swartz Creek, Linden, and Lake Fenton school districts.

This location provides Mundy's residents a rural environment with easy access to major transportation corridors (I-75, I-69, US-23), communities throughout southeastern Michigan, as well as several local communities which offer a variety of amenities and opportunities for recreation, shopping, and employment. Figure 1 shows the location of Mundy Township and its surrounding communities.

Climate

Mundy Township is located in a region with cold winters and warm summers, which provide the residents with a wide variety of weather patterns. Average annual precipitation varies from 28 to 32 inches with winter snowfall and summer rainfall. Average temperatures vary from 14 to 18 degrees Fahrenheit in January to above 70 degrees in July. The growing season lasts about 150 days of the year, with sunshine and relatively clear skies 179 days of the year (City – Data.com, 2005; MSU, 2005).

Figure 1.



Physical Characteristics

Mundy Township is characterized by relatively flat topography and fertile soils. The majority of the Township is agricultural land, with forested lands and wetlands. It is also home to several small lakes and part of the Swartz Creek River.

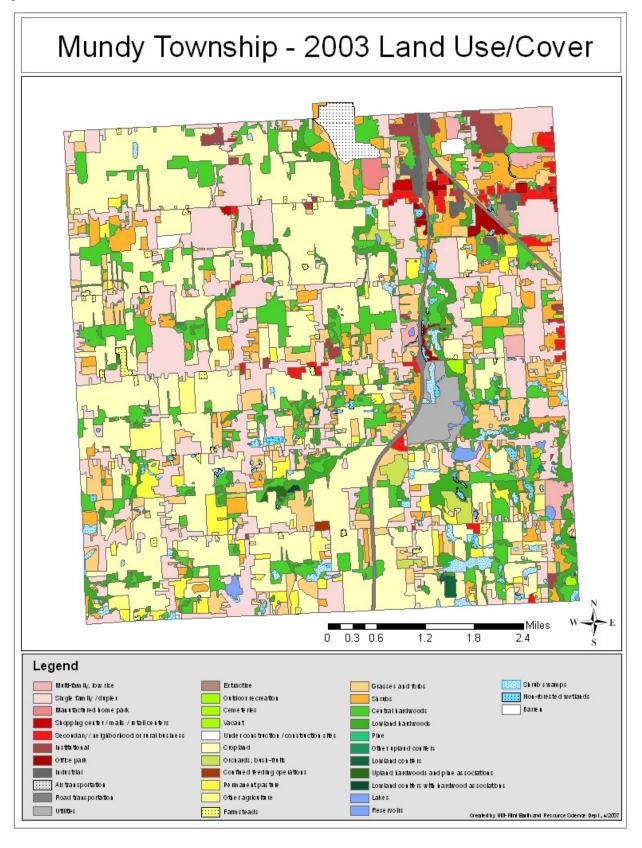
Mundy Township has seen a considerable expansion of residential and commercial land in the last twenty-five years (Hill-Rowley, Clark and Sanker, 2006). The commercial cluster in the vicinity of the US-23/I-75 intersection has expanded rapidly, and farmland has been lost to residential expansion. These changes are summarized in Table 1.

TABLE 1 MUNDY TOWNSHIP LAND USE CHANGE

Land Use	1978 (acres)	2003 (acres)	Change (acres)	Percent Change
Residential	2767	5177	2410	87.1
Commercial	369	767	398	107.9
Industrial	97	127	30	30.9
Transportation/ Utilities	431	694	263	61
Recreation Agriculture	38 12575	112 8637	74 -3938	194.7 -31.3
Grassland	3937	3508	- 429	-10.9
Forested	2830	3815	985	34.8
Wetland	361	549	188	52.1

Land use mapped in 2003 (Figure 2) shows residential land use blocks, particularly in the northern part of the township, but significant areas of agricultural and forested land are still present in the township, and this contributes to its rural character.

Figure 2



The township is surrounded by communities that are also undergoing significant development. Major retailers, such as Meijer and Target, have built stores, and restaurant chains, such as McDonald's and Arby's, have been established in the surrounding communities of Grand Blanc, Fenton, Linden, and Swartz Creek. Grand Blanc Township to the east and Fenton Township in the south have had the fastest residential growth in Genesee County between 1990 and 2000 (GCMPC, 2007a). The development in these surrounding communities is beginning to encroach on Mundy's borders. A good example would be the several new neighborhoods being developed in the northeastern corner of Mundy and along Mundy's southern edge.

As development in the surrounding communities continues, Mundy becomes increasingly poised for significant development, thereby increasing the need for focus on the planning required to ensure a healthy and vibrant community. This planning effort is an important part of that process in that it establishes priorities for parks and recreational development as well as open-space preservation to ensure the health of the township's residents and environment.

Social Characteristics

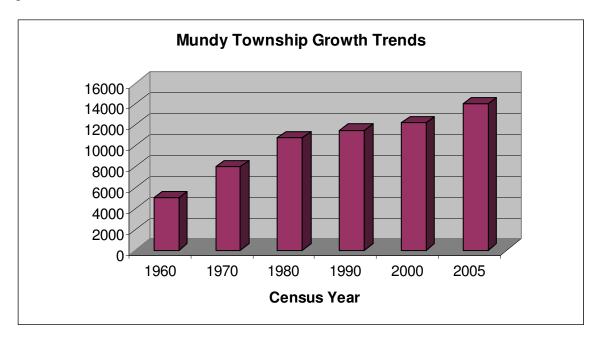
Demographic characteristics for Mundy Township help in gaining insight into future recreational land use planning needs. Of the demographics considered, special attention is paid to the three key areas of population totals and growth trends, housing/income groups, and age profiles.

Population

The 2000 Census reports the population of Mundy Township to be 12,191. Growth trends have varied over the past several decades, but have shown an overall population increase. From 1960 to 1970 the population grew from 5,004 to 8,029, an increase of 60.5%, and from 1970 to 1980 with 2,757 more people, an increase of 34.3%. The eighties and nineties saw less substantial growth periods with only an increase of 1,405 people from 1980 to 2000, an average of 6.3% as shown in Figure 3. These declining

growth rates are reflective of the job market trends of the auto industry in Flint, Michigan over the past decades.

Figure 3.

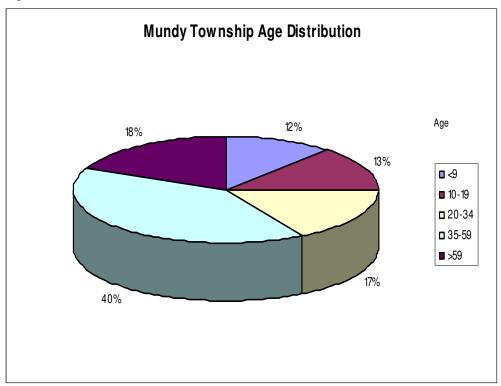


Mid-census population figures for Mundy Township show a population increase from 12,191 to 14,042 from 2000-2005, which is a growth rate of 15.1%. Genesee County Metropolitan Planning Commission population projections estimate that the population of Mundy will rise 49.7% from 2000 to 2030; an increase of 6,065 people. This will put the population at a projected size of 18,256 people.

Age Distribution

The majority of the population in Mundy Township falls between the ages 35-59 (see Figure. 4). This category makes up 40% of the total population. Children and teenagers under age 19 constitute 25% of the total population. Eighteen percent of the population falls in the 59 and older category, while the remaining 17% are those between the ages of 20-34.

Figure 4.



A more detailed breakdown of age structure highlights the importance of three demographic groups. Table 2 shows school-age and preschool-age children constitute nearly a quarter of Mundy Township's population, and this group remained stable in the 1990-2000 census period. It also shows the largest percentage of the population falls under the career age category and this group grew slowly in between 1990 and 2000. The retirement-age/senior-citizen groups saw the largest growth, and it seems likely that this group will continue to grow in the future.

Table 2. Distribution of age groups in 1990 and 2000 groups by life stage.

			2000 Population	
Age Group	Group Characteristics	1990 Population %	%	% Change
Under 5	Preschool	5.8	5.6	-0.2
5-19	School Age	21.8	19.3	-2.5
20-29	College / Pre-Career	14.2	10.3	-3.9
30-54	Career Age	39.0	40.2	1.2
55-64	Retirement Age	9.7	11.2	1.5
65+	Senior Citizen	9.2	13.3	4.1

Race

The majority of the population of Mundy Township is of Caucasian descent, representing 96% of the total. African Americans make up 1.4 percent, while Asian and other races make up the remaining percentage.

Educational Attainment

Educational attainment statics on Mundy Township residents over the age of 25 were obtained from the 2000 U.S. Census report. Statistics indicate that 88.5% of Mundy's residents have acquired at least a high school diploma, and 17.9% have acquired a bachelors degree or higher. National statistics at this time indicated that 80.4% of the U.S. population had attained a high school degree or higher and 24.4% had attained a bachelors degree or higher. This places Mundy ahead of the national average in producing high school graduates but lagging considerably behind in producing college graduates. A breakdown of Mundy Township's residents' educational attainment level in 2000 can be found in figure 5.

Mundy Township's 2000 Educational Attainment

13.10%

Less than a high school degree

High school degree or equivalent

Some college, no degree

Associates degree

Bachelors degree

Graduate or professional degree

Graduate or professional degree

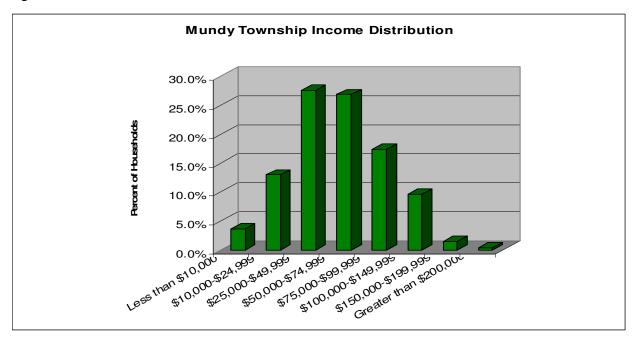
Figure 5.

Income Distribution

The income distribution breakdown for Mundy Township shows that the majority of households fall into a category reporting \$25,000 to \$49,999 a year. The next highest category of households is \$50,000 to \$74,999. Figure 6 shows middle class household

incomes dominating the income spectrum, with smaller quantities of households showing outliers of high and low incomes. Households making \$200,000 or greater represent only 0.3% of the total households, while those households making less than \$10,000 represent 3.7% of the total.

Figure 6



As the number of older people in Mundy Township grows, retirement income becomes an important factor. The mean retirement income for Mundy Township was \$16,865, whereas the value for residents of Genesee County was \$18,617. This lower number is in contrast to a comparison on median household income; where Mundy Township with a value of \$53, 948 exceeds the Genesee County number of \$41, 952.

Housing

The 2000 Census shows that there are approximately 5,047 housing units within Mundy Township with only 171 vacant units. Of the 4,876 occupied housing units 4,284 housing units are owner occupied (87.9%) while renter occupied households constitute 592 (12.1%) of the occupied housing units.

The dominant type of household is the family household, constituting 3,583 housing units, or 73% of the total housing units. Of these family housing units, 1,550 (43%) have children under the age of eighteen.

Persons with Disabilities

The 2000 U.S. Census reports that a total of 2,160 people within Mundy Township over the age of five are considered to have a disability of some sort. This number represents 17.7% of the total population. Compliance to ADA standards, which mandate accommodation for people with disabilities, must be addressed in Parks and Recreation planning.

Special Population Group Considerations

Analysis of the demographic data suggests groupings of people that are likely to have specific recreational needs. It is important to consider the following groups during the development of a parks and recreation plan.

- Approximately 32% of all households in Mundy Township have children under the age of eighteen. Such households will need access to appropriate, probably active, recreational opportunities for youth development and community enrichment.
- The Retirement and Senior citizen age groups saw the largest population growth from 1990 – 2000. It is expected that these age groups will continue to grow in the coming years as the population of career aged citizens continues to age Retirement income for these groups is modest and will necessitate the offering of low cost, probably passive recreation opportunities..

Plan Focus

This plan was developed with several goals in mind. First, the Mundy Township community highly values its present rural character and wishes to preserve this feature for future generations. Second, Township residents have expressed a strong interest in the development of an integrated trail network, which connects residents to schools, local municipalities, and community destinations. Lastly, the community desires to create a broad range of passive and active recreation opportunities. Land acquisition

and preservation of greenways and open spaces, as well as recreational facilities development will be crucial to attaining all of these goals.

The most immediate focus of this plan will be the development of a centralized community park. This park will include a range of passive and active recreational opportunities, so that it can be enjoyed by the entire community. Present development goals include ADA compliant walking trails, sport fields, picnic areas, children's playground, and community pavilion.

Administrative Structure

The Parks and Recreation Committee is comprised of 7 residents of the Charter Township of Mundy. Committee members are appointed by the Board of Trustees. The responsibilities of the Committee include developing, amending, and administering the parks and recreation plan, recommending to the Mundy Township Board of Trustees which park plan is most suitable for the township's residents, and providing fundraising support for the implementation of the Parks and Recreation Plan. The Mundy Township Board of Trustees hold final authority regarding parks and recreation planning and development under the authority of MCL 41.421 (Michigan Compiled Laws) and Act 157 of the Public Acts of 1905.

Budget

Mundy Township presently allocates no money in its budget for parks and recreation development as the township has had no parks and recreation holdings up to this point. The Mundy Township government is committed to development of parks and recreation holdings at a minimum cost to its residents. For this reason, future development and maintenance of park and recreation opportunities has been structured to be largely volunteer and community driven with support provided through fundraising efforts. Additional funding opportunities have been identified through private and corporate sponsorships and grant opportunities have been identified through state programs and private philanthropic organizations. Following approval of the parks and recreation plan, the township plans to strongly pursue outside funding sources.

Currently, the Parks and Recreation Committee has already begun fundraising efforts and volunteer recruitment for development of the first Mundy Township park. Examples of the fundraising underway and planned for the near future include the administration of a Mundy Township Farmers' Market (implemented in August 2008 with vendor fees to support parks development), a Flower Power flower bulb sale (planned for Fall 2008), and the sale of Entertainment Books (currently underway). It is expected that a "Friends

of the Mundy Township Park" group will be formed to carry these efforts forward in the long term.

The Mundy Township Board of Trustees has committed to allocating a sum of \$1000.00 per year for the next five years (2009-2013) to support fundraising efforts. This show of commitment from the Board will be utilized to assist fundraising efforts allowing this sum to leverage additional dollars and demonstrating the long-term commitment of the Township to development and maintenance of parks and recreation holdings in Mundy Township.

Administrative Responsibilities

The following is a representative flow chart of the Parks and Recreation Administrative structure.

Charter Township of Mundy Residents

Mundy Township Board

Mundy Township Planning Commission

Parks and Recreation Committee

Five-year Parks and Recreation Plan

Maintenance, Parks and Recreation Improvements (Potentially)

Mundy Township Board

Karen Bond – Supervisor Karen Gawron – Trustee

David Guigear – Treasurer Tonya Ketzler – Trustee

Rick W. Frost – Clerk Robert Neumann – Trustee

Joe Oskey - Trustee

Mundy Township Planning Commission

Gerrad Godley Tonya Ketzler

Betty Harrison Maria MacLean

Phillip Holmblade Thomas D. Rathsack

Mundy Parks and Recreation Committee

Gerrad Godley – Chairperson Fred Hensler Todd Regester Karen Gawron Michael Taylor Virginia Chatfield (Vacant)

Partnerships

Mundy Township recognizes the importance of community partners in planning and development of its future parks and recreation amenities. These partnerships are valued not only for the support and insight provided, but also in recognition of the valuable resources and technical support available in the community. To date a number of community partners have been involved in the planning phase of the parks and recreation plan. Furthermore, as implementation of the plan proceeds, the township plans had identified and plans to cultivate relationships with a number of additional partners.

Current Partners;

Center for Applied Environmental Research (University Outreach, UM-Flint)
Genesee Regional Trail Council (Genesee County Metropolitan Planning Commission)
Keep Genesee County Beautiful
Flushing Township Nature Park
Wild Ones

Potential Partners:

Bordine's Nursery
Genesee County Conservation District
Genesee County MSU Extension
Flint River Watershed Coalition
Fraternal Eagles of Burton
Lions Club

Description of Planning Process

The Mundy Township Master Plan, which was approved in 1997, made no provision for park and recreation land uses (Wade Trim, 1997). A Master Plan Update program completed in 2001, however, included a Visioning and Master Plan Evaluation process for a Steering Committee of township residents, which identified Parks and Recreation as an area for future work. "Parks and Recreation Areas" were identified as one type of landscape the teams felt "passionate" about, and an evaluation of the current Master Plan also suggested that "The plan does not satisfactorily address natural/cultural resources..." In considering Future Land Use Plan Amendments, there was strong support for "Development of planned recreational areas". The map exercise associated with this Future Land Use visioning identifies the areas north of the Mundy Township Hall and the landfill site east of M-23 as potential parks (Municipal Systems Consulting, 2001).

Part of the Township's Visioning and Master plan Evaluation process entailed the ranking of potential future Township programs. While none of the top rated programs pertained directly to Parks and Recreation, the creation of a Recreation and Open Space Preservation Plan was identified as a necessary step during implementation strategy planning. The 2001 Master Plan Update reported:

"There was virtually unanimous support by the Steering Committee for added recreational opportunities in the Township and to preserve the Township's rural character. Thus, we recommend that a Recreational Plan be prepared (following the requirements of the State of Michigan Department of Natural Resources guidelines in order to be eligible for grant funding), and which also contains strategies for preserving open space..."

Since the Michigan Department of Natural Resources (MDNR) guidelines state that coordinating a parks and recreation plan with the township's master plan is necessary for the success of each plan, and since the Master Plan Update identified the need for a parks and recreation plan, Mundy Township appointed a Parks and Recreation Committee in 2004 with a mandate to develop a Parks and Recreation Plan for the

township. In January 2007, the Committee partnered with students and faculty at the University of Michigan - Flint's Earth and Resource Science Department to facilitate information gathering and technical support in preparing this plan.

As Mundy Township currently has no parks and recreation facilities or programs, several steps were taken to lay the groundwork necessary for development of this plan, including the development of public participation methods, creation of various maps, and the creation of recreation and natural resource inventories. The following sections describe the various processes involved in completing this work.

Public Input Efforts

Public participation by the Mundy Township community is necessary for the completion of a successful parks and recreation plan. As part of the Parks and Recreation Master Plan process, the Michigan Department of Natural Resources (MDNR) requires at least two opportunities for public participation, with the first taking place before or during the preparation of the plan, and the second taking place as an advertised public meeting at which the plan is presented for adoption.

Mundy Township offered six opportunities for public participation prior to the adoption. First, a **survey** was issued with 18 questions relating to the townships interest. Second, an **open house** was held where the public was invited to share their input and get answers to any questions they may have had. Third, a **township meeting** was held when the plan was presented for consideration by the Mundy Township Planning Commission. Fourth, a **planning charrette** was held in development of the conceptual park plan outlined in the Action Section of this document. Finally, the draft plan was on display at the Mundy Township Hall for one month with opportunity for public input followed by a public meeting prior to final adoption of the plan.

Survey Questions

Research to create a survey that would adequately represent the township's desires involved the analyses of parks and recreation areas, questionnaires and results from other communities (Ida Township; Partners-In-Planning Program of the Monroe County

Planning Department, Davison and Grand Blanc; Spicer Group Inc., Village of St. Joseph; University of Illinois at Urbana-Champaign, Meridian Township; Greenway Collaborative, Inc. and several examples from Washington State; Interagency Committee for Outdoor Recreation in the Washington State Department of Community, Trade and Economic Development).

This work resulted in a survey titled "Preparing Mundy for Saturday". It was prepared to gather information on how Mundy Township citizens used their recreation time and what parks and recreation facilities they wanted to see within the township. It was designed to be small enough to maintain interest and yet large enough to ask pertinent questions which would provide information needed to create the plan.

The first set of questions asked for demographic information. These were followed by questions on current recreational activities and what sorts of facilities should be available in the township. The survey concluded with questions regarding funding of recreation activities. A copy of the survey is included in Appendix A.

Survey Availability

In February and March of 2007, the survey was made available electronically on the website www.mparks.org as well as through a link on the township website homepage (Surveymonkey, 2007) so that citizens could complete the survey online. Figure 7 is a copy of the front page of the mparks.org web site, which provides access to the survey. An explanation of how the electronic survey was created and images of the way the survey appears online are in Appendix B. Paper copies of the survey were also available at the township offices.

Open House Meeting

On March 20, 2007, from 7:00-8:30p.m., an open house meeting took place at the Mundy Township Administration Building. A flyer to advertise the survey and promote an open house meeting was created and distributed to the community through local schools and churches (see Figure 8). The open house meeting consisted of 5 activities for public engagement.



Mundy Township Parks and Recreation Survey

Welcome to the Mundy Township Parks and Rec Survey website.

Mundy Township parks and recreation facilities have the exciting potential for providing fun, interesting, and healthy recreation for our residents, and at the same time for increasing the enjoyment of community life. As we explore the possibilities, we need to know what is important to our citizens. Please answer the questions in the following survey and feel free to add any suggestions you might have. Your input is vital!

Please click here to take the parks and recreation survey

Open House Information

Please join us at our Parks and Recreation Open House to hear about what we have been working on and to give us any further input.

When: Tuesday, March 20 2007

Time: 7:00pm to 8:30pm

Where: Mundy Township Administration Building

Donald G. Halka Auditorium 3478 Mundy Avenue Swartz Creek, MI 48473



Open House

Parks and Recreation Plan Charter Township of Mundy



When: Tuesday, March 20, 2007

At: 7:00 - 8:30 p.m.

Where: Mundy Township Administration Building

Donald G. Halka Auditorium 3478 Mundy Avenue Swartz Creek, MI 48473



The Mundy Township Parks and Recreation Committee is working on its first parks and recreation plan that will help us respond to the needs of township residents.

We need to get your ideas!

You can help us in two ways.



First, we have a survey that we would like you to complete. It is a questionnaire that can be found online at: www.mparks.org. Printed copies of the questionnaire will also be available at the Township Hall for you to complete.

And then please join at us at the Open House on March 20 to hear about what we have been working on and give us your input.

Refreshments will be served and we look forward to seeing you!



Activity 1 consisted of a map of local recreation opportunities within Mundy, a table listing all the recreation opportunities found to date in the surrounding area, and a form to collect additional recreation opportunities previously overlooked. The activity requested the resident to indicate which sites listed on the table he/she has used, and make comments/suggestions regarding additions/subtractions to the table.

Activity 2 involved the resident's prioritization of pre-defined trail connections to other communities displayed on a map. Participants were given 3 sticky-dots (red for high priority, yellow for medium priority, green for low priority), and asked to stick them to points on the map to indicate their personal preferences.

Activity 3 accompanied a map highlighting a proposed trail network, and involved the resident's prioritization of pre-defined trail segments within Mundy Township.

Participants were given 3 sticky-dots (red for high priority, yellow for medium priority, green for low priority), and asked to stick them to points on the map to indicate their personal preferences.

Activity 4 involved the resident's choice and prioritization of natural areas to be conserved. A map was displayed showing potential natural areas. Again, participants were given 3 sticky-dots (red for high priority, green for medium priority, and yellow for low priority) and asked to stick them on the map to indicate their choices.

Activity 5 involved the collection of paper-copy surveys, advertisement of the online survey, volunteer interest inquiry, and comment collection.

Recreation Inventory Efforts

The recreation inventory involved three separate areas: a description of the community's **regional setting**, in terms of location, climate, and surrounding communities; a description of the Mundy Township's **social characteristics**, and **an inventory of the recreation opportunities** available to the township's residents. An initial study of other Michigan communities' parks and recreation plans (Grand Blanc, Ida, Cascade, and Meridian Township) provided an understanding of how various communities determine what is important in terms of parks and recreation needs and opportunities.

Regional Setting

The regional setting was assembled to show Mundy Township's location in relation to its surroundings, to give a brief synopsis of its climate and physical characteristics, to provide an idea of development trends, and to describe its physical characteristics. The location information was obtained through map analysis. Climate and physical characteristics were obtained through internet research, windshield survey, and interviews. Development trends were identified by analyzing the presence of new improvements (businesses, neighborhoods) and construction sites.

Social Characteristics

Demographic information was obtained by reviewing Census information from 1960 to 2000, and analyzing that information in a way that paints an accurate picture of the population of Mundy Township. Key trends pertinent to Parks and Recreation planning were identified from the data. The provisions of the Americans with Disabilities Act were briefly summarized in association with a census summary of people with disabilities in the township.

Recreation Inventory

A recreation inventory for Mundy Township and adjacent communities was constructed. Maps, internet research, windshield surveys and personal interviews were used to collect local data, and a review of recreation plans from Grand Blanc (2006) and Swartz Creek (2006) provided information on recreational opportunities in adjacent communities. Most of the recreation opportunities were compiled into a series of tables and associated maps

Map Creation and Identification of Potential Natural Areas

Geographic Information System (GIS) technology was used in preparing the map to display the recreation inventory information, to prepare maps that were used to generate public input at the Open House, and mainly, to analyze potential natural areas in Mundy Township.

Existing and potential recreation facilities in the township were mapped, along with a trail network identified in the Genesee County Regional Trail Plan (GCMPC, 2007b). The links in the trail network, and points where this trail network could connect to trails in surrounding communities were included in separate maps that were used to gather public input at the Open House Meeting. These two maps were later combined with the scores they received from public input to produce a map that was analyzed in plan development.

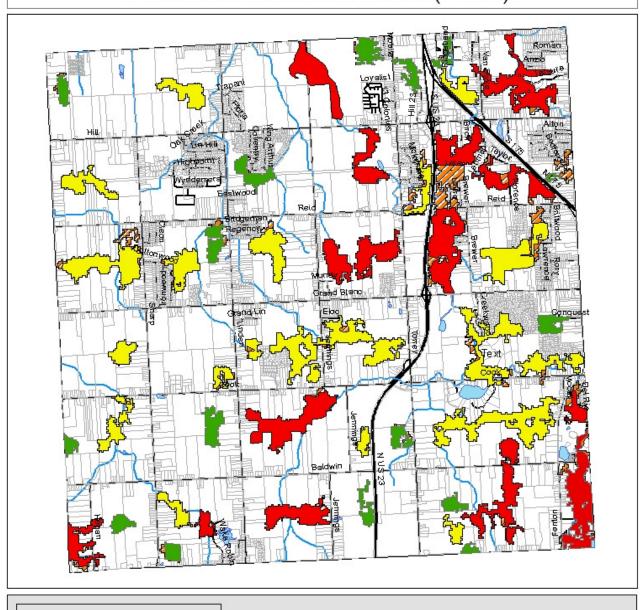
Potential Natural Areas (PNAs) for Mundy Township have been identified by the Greenlinks project in a regional assessment covering Genesee, Lapeer and Shiawassee counties – known as the GLS region. The Greenlinks methodology used land-use data derived from satellite images collected between 1997 and 2000 (Pijanowski, 2006). The Michigan Natural Features Inventory (MNFI) was contracted to reclassify the land use/land cover to identify natural areas and score them using a seven step methodology (Hyde, 2006). Once the MNFI data was obtained for Mundy

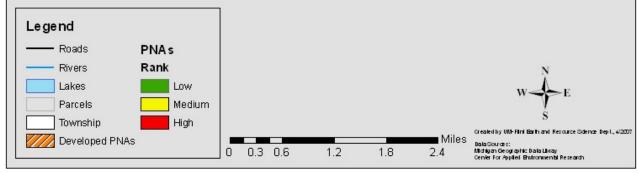
Township, the PNAs were cut out and reclassified for the smaller township area. Since these PNAs were created using old data, and parts of them have since been converted to housing or commercial use, they were updated using newer aerial imagery. Developed sections were removed to show the remaining PNA land as well as the developed land (see Figure 9). These PNA's are important because they are used in scoring proposals submitted for funding to the Michigan Natural Features Trust Fund.

A second and distinct step in the PNA mapping process involved making a completely new PNA map for Mundy Township as part of the Parks and Recreation planning process. This map was needed because new land use/land cover maps for the township were available, prepared using high resolution digital aerial imagery acquired in 2003 (CAER, 2006b). The improved resolution of this data source allowed more accurate mapping than was possible in the map used for the Greenlinks process. Wetlands, forest, and brush lands that may have high conservation value were combined into larger blocks of land for analysis. A similar methodology to Greenlinks was employed and these areas were analyzed for size, core area, presence of stream corridors, and landscape connectivity (MNFI, 2002). These new PNAs were ultimately used as the basis of an open space plan for the township which is discussed in the Open Space Plan section of this document (see Figure 15, p.35).

Figure 9

Mundy Township GreenLinks Potential Natural Areas (PNA)





Recreation Inventory

A recreation inventory was prepared for the plan. It focused on opportunities that were available within the township, and on opportunities in a broader regional area. A series of tables detailing the locations, are included in Appendix C.

Opportunities

Most recreational opportunities in the township were found to be private in nature and clustered in the northeast quadrant of the township (see Figure 11, p. 25). The variety of this recreation is wide, including a golf course, field house, drive-in theater, and rock wall/challenge center. In the Open House held on March 14, 2007, residents were asked to review the recreation inventory and indicate which of the locations they visited (Figure 10). The facilities identified reflected the older demographic profile of those residents attending the open house.

Figure 10.

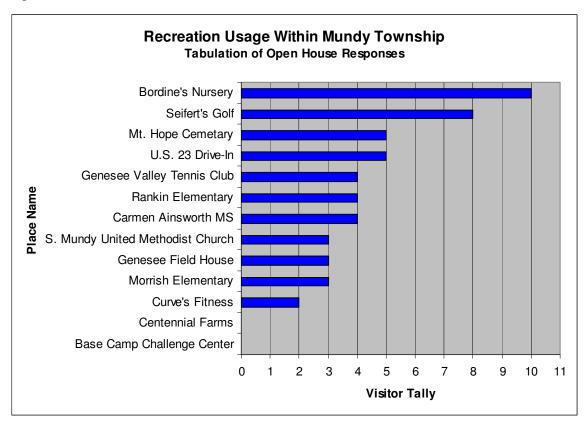
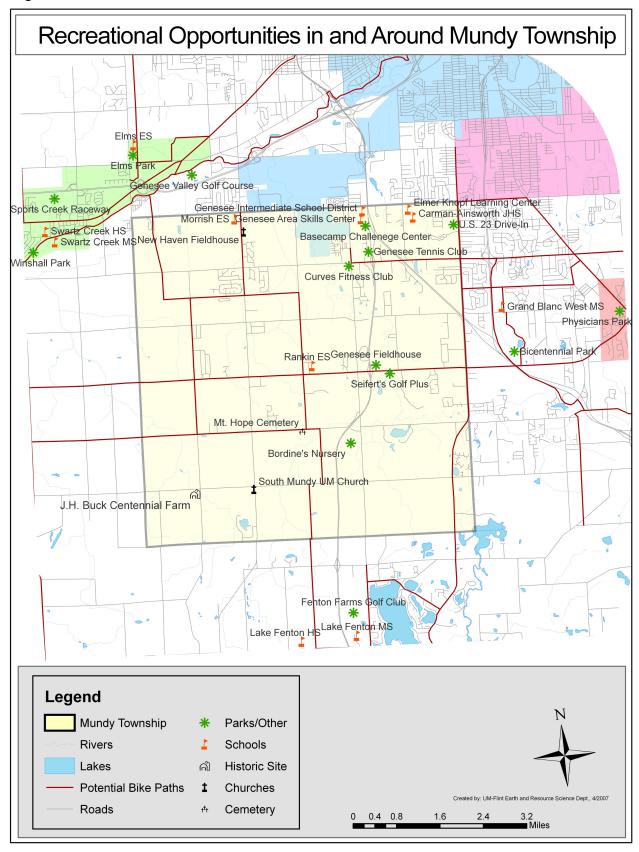


Figure 11



There are also a variety of public parks and recreation opportunities used by Mundy Township residents in the nearby communities of Fenton, Grand Blanc, and Swartz Creek (see Figure 11) and Genesee County and State Recreation sites are within a half-hour's drive from Mundy Township (see Figure 13, p. 27). A mix of these areas was important to the Open House participants, with a clear preference for natural open space areas (see Figure 12).

Figure 12.

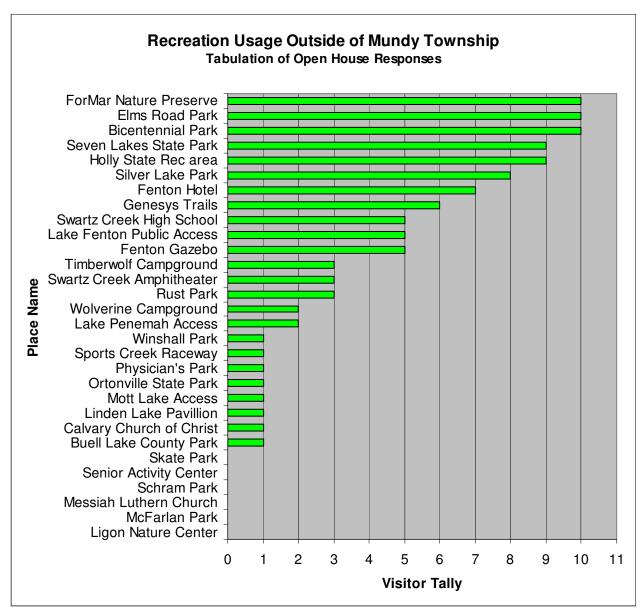
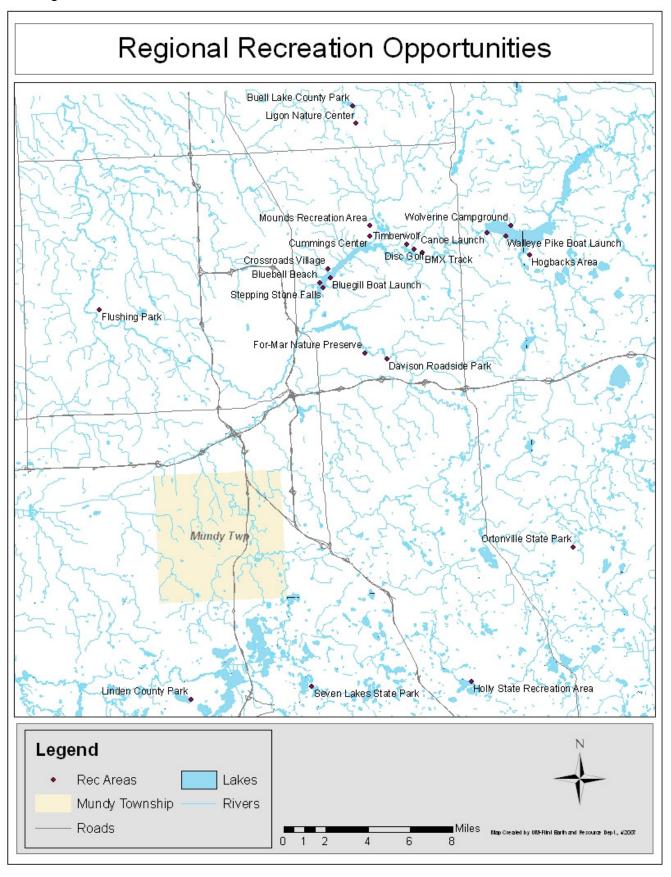


Figure 13.



Trails

There are currently no trails in Mundy Township, but the Genesee County Regional Trail Plan identifies a potential network in the township. This network is also included on the map of major recreational opportunities (Figure 11). The Swartz Creek Watershed Management Plan (CAER, 2006a) proposed a trail along Swartz Creek through Mundy Township and this was also considered as part of the potential network. At the Open House, residents were asked to look at this network and identify which connections to other communities were important, and which segments of the potential trail network within the township were of highest priority.

To gather information on trail connection preferences, residents were provided with three colored sticky-dots and asked to rank their choices for connections and links. Red dots represented the highest priority and were assigned a value of three. Yellow dots represented the respondent's second highest priory area and were assigned a value of two. Green dots represented the lowest priority area and were assigned a value of one. Table 3 shows the responses and prioritized score for the trail connections to other communities.

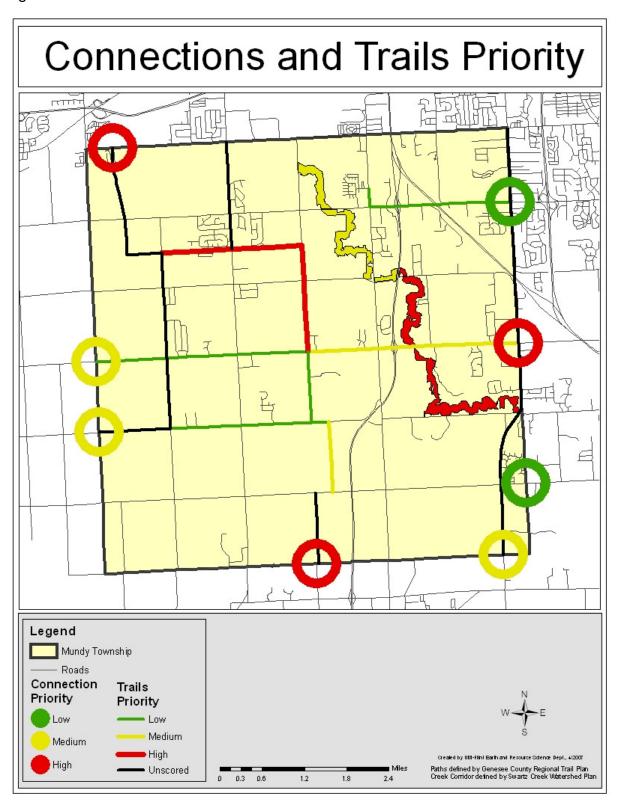
Table 3.

Location	# of responses	Prioritized Score
Grand Blanc Rd. and	12	33
Fenton Rd.		
Fountain View and Maple	12	29
Rd. *		
Ray Rd. and Jennings Rd.	10	24
Grand Blanc Rd. and Elms	6	15
Rd		
Ray Rd. and Fenton Rd.	8	13
Cook Rd. and Elms Rd	5	11
Hill Rd. and Fenton Rd	3	5
Baldwin Rd. and Fenton	1	2
Rd		

The connections within the township that received the greatest number of responses and the highest prioritization scores connect Mundy Township to Grand Blanc, Swartz Creek, and Fenton. The parks and recreation survey also identifies these communities

as places where residents seek recreational opportunities (see Figure 14 and Appendix D, Question 5).

Figure 14.



Trail links within Mundy Township were prioritized in the same way as trail connections; residents assigning preferences on a map with sticky dots (see Table 4). Ranking of trail links within the township, except the river corridor, made Jennings Road, north of Grand Blanc Road, and the non-road link west through a utility right of way to Sharp Road the highest priorities. The link along Grand Blanc Road, east from Jennings Road, to the Grand Blanc Township border was a medium priority. Other segments were also ranked (see Figure 14).

Table 4.

Location	# of responses	Prioritization score
Southern portion of river	13	31
Jennings Rd. north of Gd. Blanc Rd.	11	20
And then west.		
North portion of river	5	10
Gd. Blanc Rd. btwn Fenton Rd.	5	10
And Jennings Rd.		
Jennings Rd. south of Cook Rd.	3	6
Jennings Rd. btwn Cook Rd.	2	2
And Gd. Blanc Rd.		
Hill Rd. btwn Fenton Rd.	2	2
And Torrey Rd.		
Cook Rd. btwn Sharp Rd.	1	3
And Jennings Rd.		
Gd. Blanc Rd. btwn Elms Rd.	1	1
And Jennings Rd.		

The Open House Meeting also concluded that the Swartz Creek river corridor in Mundy Township ranks high in the minds of township residents. Establishing a river trail along this route will help preserve the natural features of the township and offer additional recreation opportunities (see Figure 14).

Programs

AYSO Soccer

Based out of Swartz Creek, Michigan

Soccer /Baseball Leagues – Carman Ainsworth Middle School

Historic and Cultural Resources

Buck, Jessie, H. Farmhouse Historic Site

Location; 6095 Baldwin Rd. Swartz Creek, Michigan.

Accessibility Statement

A park can only be safe, accessible, and usable for all of Mundy Township's residents when it includes the consideration for persons with disabilities. The MDNR has developed a grading system, based on ADA guidelines, to easily identify parks and facilities which are most and least handicap accessible and usable.

At the time of this writing, an ADA compliance assessment for Mundy would yield a score of 1 on this scale, simply because Mundy has no parks. But this notion assumes a park exists before it is updated to compliance standards.

In a situation, such as Mundy's, in which the community has *no* parks, it becomes important to design ADA compliance into the construction of any parks. This element of design dictates the need for this plan to be created, monitored, and periodically updated. (Dept. of Justice code of Federal Regulations – 28 CFR Part 36: Accessible Design [http://www.usdoj.gov/crt/ada/adastd94.pdf])

Survey Results

A survey titled "Preparing Mundy for Saturday" was prepared and made available online and in hard copy format at Mundy Township Hall. Residents attending the Open House were also able to complete the questionnaire. Seventy-three responses were contributed and a complete tabulation of the results is included in Appendix D.

Summary of Survey Findings

Outdoor recreation is very important to residents. The most popular activities are walking/hiking, biking, swimming, visiting playgrounds, baseball/softball, fishing, and sledding. These activities are most likely to take place in either Grand Blanc or Swartz Creek. If respondents do not participate in recreational activities, a lack of facilities was the most common response, and a lack of sidewalks was a close second. Most respondents want to see walking trails, benches/picnic tables, and pavilions made available in the township. These preferences were followed by children's playground equipment, sledding hills, baseball/softball diamonds, outdoor skating rinks, fitness trails with mile markers, multipurpose fields, and paved pathways. A majority of the respondents would also like to see these opportunities available in one centralized park, and most are willing to travel 3-6 miles for this recreation. To encourage community interaction, the respondents believe summer activities for children and festivals would be most beneficial.

Trails were very important to the respondents of the survey. Trail-based activities have the highest priority, and respondents use trails for walking/hiking and bicycling in neighboring communities. Most people would like to see the trails or pathways connected to communities, schools, and community destinations.

Respondents were also asked about conserving green space in Mundy Township. Over half of the respondents either strongly agreed or agreed it is important to conserve green and open space. They believe it is important to protect and conserve water and air quality, to provide healthy living and quality of life, to provide access to outdoor recreation activities, and to provide habitats for a diversity of plant and animal species.

To fund the Mundy Township parks and recreation, the response shows a combination of user fees, ¼ mill recreational property taxes, flat fee assessments, and private donors/corporate sponsors should be used. A large majority of the respondents would also support a flat fee assessment ranging between \$10 and \$50; a \$20 fee received the largest percentage.

The majority of survey respondents came from north of Grand Blanc Road and East of U.S. 23 - the most densely populated part of the township. Most of the respondents were families with children, but empty-nester age-groups were also well represented in the respondent group. The responses covered the full range of geographic distribution and age groups located in the township; therefore, they should be highly representative of the whole community.

Open Space Plan

An Open Space Plan is an important component of a Parks and Recreation plan. For Mundy Township, it is a logical outgrowth of the process of identifying PNAs, preferences expressed in the "Preparing Mundy for Saturday" survey, and the public input collected during the Open House Meeting. There is increasing recognition that physical activity is important for maintaining physical health, and research shows that people are more likely to get exercise if recreation and transportation opportunities are nearby and easy to access (Alaimo, et al., 2006). Both the survey and the open house provided support for these ideas, with walking, biking, and sports as preferred activities, and lack of facilities and absence of trails and sideways as important factors limiting activity (see Appendix D; questions 6 and 7). The MDNR encourages communities to recognize that providing these opportunities for citizens requires planning that includes, not only traditional parks, but also trails, greenways, and conservation lands (MDNR, 2006). The objective of this component is to bring trails, destinations, and natural areas into a cohesive open space plan.

Potential Natural Areas identified for Mundy Township are presently wetlands, woodlots and shrubs, which provide good wildlife habitat and are large enough that the species can move between them and not become isolated in small patches (see Figure 15). These areas contribute to Mundy Township's rural character and can provide areas for parks and trails. They are particularly important in Mundy Township because the township has not yet designated areas for parks, and the demographic analysis suggests that these natural areas will serve as passive recreation resources for the older segment of the township's population. In the visioning associated with a Master Plan update process in 2001, participants identified conservation of natural areas as an important goal, and associated this with recreation planning. The results of the survey input also support this view with 55% to 81% of respondents supporting conservation of green and open space for various purposes (see Appendix D; question 13). Also, at the Open House, Potential Natural Areas were identified and ranked by respondents selecting particular woods and wetlands that are of special appeal (see Figure 16).

Figure 15

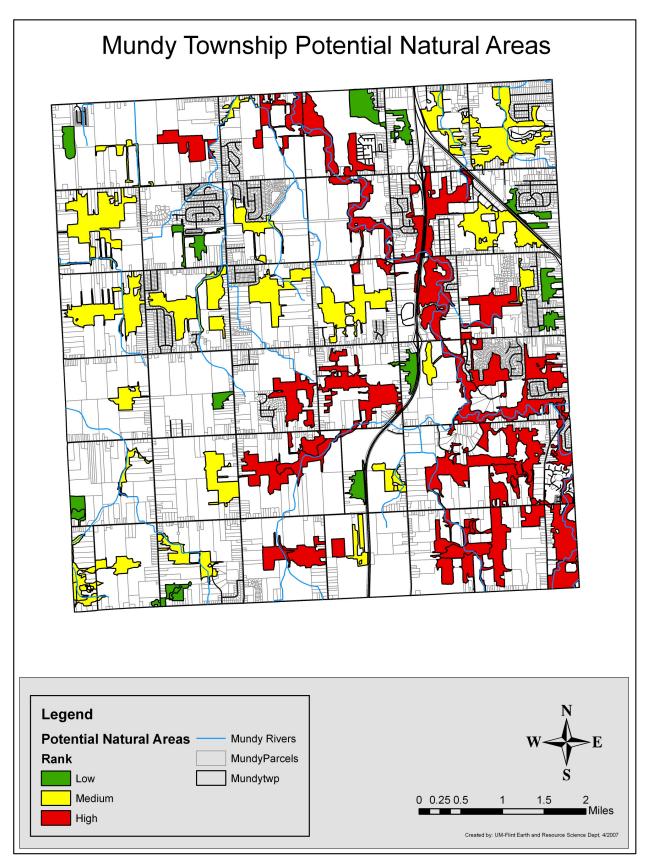
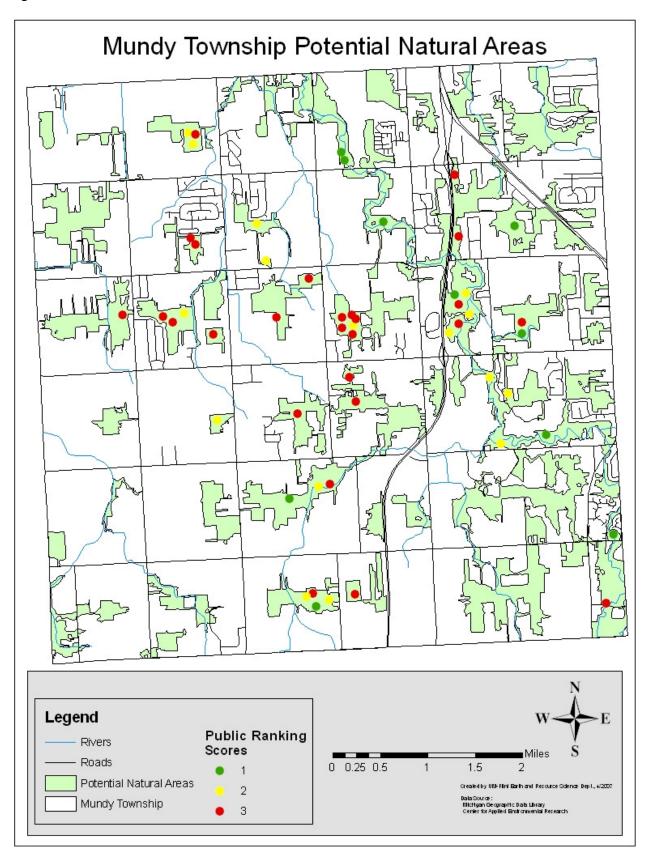


Figure 16



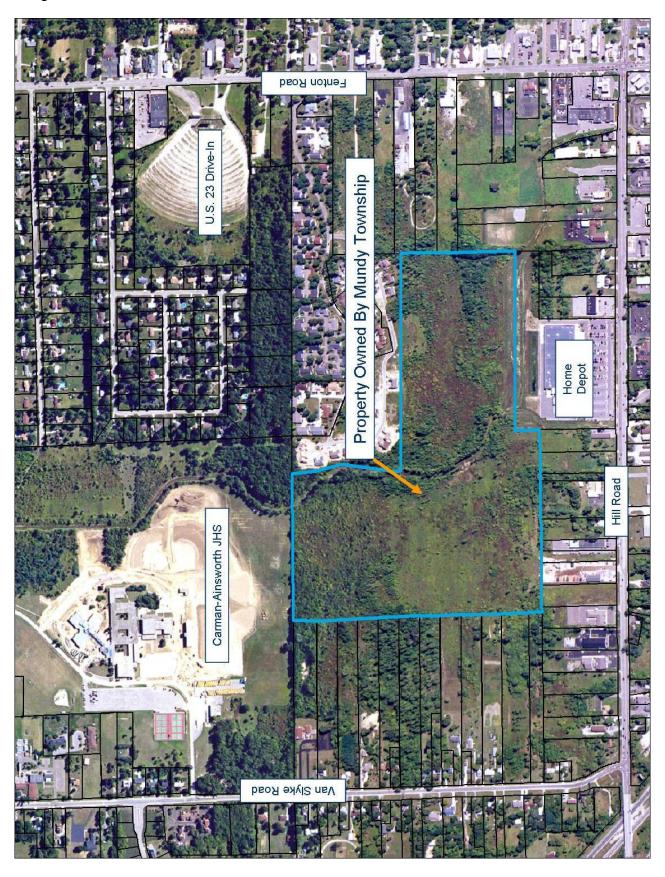
Integration of these areas into a new township Master Plan will allow Mundy Township to protect them while accommodating development. In fact, the design of new development can be used as a tool for permanently protecting natural areas, and so enhance the quality of life in the community (Greenway Collaborative, 2003).

The development of a park in Mundy Township is a key finding from the survey (Appendix D; question 8). It is also supported by the activity data in the survey. An interpretation of these results suggests that there are several types of activities that residents would like to see in a park: community meeting places, sports facilities and walking trails (Appendix D; question 7).

Creation of a park has been officially discussed in the township during the last year. Specifically, a proposal to develop a pathway and bench on land adjacent to the township hall was proposed as an Eagle Scout project by Luke Boone in 2006. The idea was supported by the Mundy Township Planning Commission at their meeting on July 12, 2006. This property is classified as a potential natural area in both of the PNA maps for the township, and received the highest "Special Places" score at the Open House (see Figure 16).

Another parcel owned by the township is located, adjacent to Carman-Ainsworth Middle School, behind Home Depot on Hill Road (see Figure 17). This 83 acre parcel is located in the most developed part of the township, and could also be developed into a park. It abuts Carmen-Ainsworth Schools on the North, and offers the opportunity of the school district as a potential partner. It was suggested at the Open House that this site may allow the township to seek funding from the Home Depot Foundation. Park development is not one of the foundation's funding priorities, but partnering with the local store may be valuable if a decision was made to develop this area as a park. Once Citizen's Landfill is capped it will probably be re-vegetated and this area could potentially become a recreation asset.

Figure 17

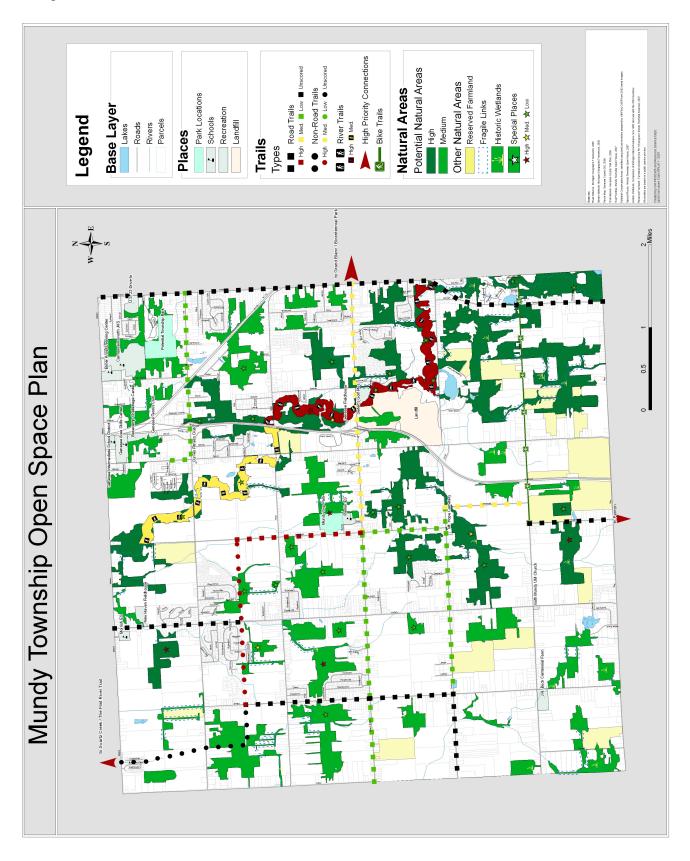


Trails are the third major leg of the open space plan. The Genesee County Regional Trail Plan identified a network of road and non-road links within Mundy Township. These links are part of the proposed countywide network. Grand Blanc has the most developed network of active trails in Genesee County. Swartz Creek has a bike lane along its major street and an ambitious plan to expand its trail network (Rowe Engineering, 2006). Responses from the Open House identified connections to these assets as the highest priority for Mundy Township (along with a connection in the south to Fenton). Ranking trail links within the township, except the river corridor, made Jennings Road north of Grand Blanc Road and the non-road link west through a utility right-of-way to Sharp Road the highest priority. The link along Grand Blanc Road east from Jennings Road to the Grand Blanc Township border was a medium priority

Two other items were added to the open space map. Farmland reserved through participation in the Farmland & Open Space Preservation Program (PA 116) is also valuable open space that is presently not available for development. Finally, the Michigan Natural Features Inventory methodology includes a comparison of the current land use with a map they prepared which represents pre-settlement land-use, circa 1800. The key component in this comparison for Mundy Township is wetlands that are still present on the 2003 land use map. They are labeled as Historic Wetlands on the Open Space Plan (Figure 18).

Together, all of these disparate layers demonstrate important natural lands, important destinations, and important paths through the township (see Figure 18). They provide a guide for Mundy Township in planning a community that not only includes new homes and commercial zones, but logically integrates natural areas, recreation opportunities, and safe trails.

Figure 18



Recommendations

- 1. Establish a community park in Mundy Township.
- 2. Encourage community involvement and interaction. Gather volunteers to assist in construction and landscaping for the new park.
- 3. Work with the consultant team revising the township Master Plan to require miniparks and sidewalks as components of new residential developments.
- 4. Develop closer partnerships with schools in the township to make recreational assets on school property more accessible to township residents.
- 5. Promote programs such as youth sports leagues, senior citizens physical fitness, festivals or summer activities for children. In addition, promote other private uses for the new park facilities that can generate a new revenue stream to support parks and recreation in the township
- 6. Coordinate with adjacent communities to implement the Genesee County Trail Plan by developing the high priority trail links in the township.
- 7. Work with the consultant team revising the township Master Plan to design incentives for developers to incorporate natural areas into plans for new development that permanently retain these areas as open space.
- 8. Evaluate several park sites for long-term park-system planning.

Goals and Objectives

Mission Statement:

The Charter Township of Mundy is dedicated to improving the quality of life for its residents by providing safe and accessible opportunities for recreation, while committing to the preservation of natural resources.

The overall goal of Mundy Township is to provide recreation opportunities for the community it serves. The Mundy Township Parks and Recreation Committee prepared the following goals and objectives based on the demographic characteristics of the township's population, the area's physical and environmental characteristics, and on results from the survey and input from the Open House Meeting.

Goal 1- Provide safe, community-based recreation opportunities. Objectives

- Develop a primary park with multiple uses in Mundy Township.
- Solicit monetary and voluntary contributions to establish a park.
- Encourage Mundy Township to adopt funding criteria to support parks and recreation development.

Goal 2- Promote the broad development of trails in Mundy Township that will link the township to the emerging regional trail network. Objectives

- Preserve for future use, a river trail along a portion of Swartz Creek corridor in the north, central part of the township.
- Investigate priority linkages identified in the plan.
- Develop biking and walking trails that connect housing communities with natural areas, parks, and township businesses.
- Explore regional partnerships to promote trail development (Genesee Regional Trail Council, Safe Routes to School, Rails to Trails, Genesee

County Parks and Recreation Commission, Genesee County Road Commission, Genesee County Land Bank, Michigan Department of Transportation).

Goal 3- Secure a network of natural areas that can provide the basis for an Open Space plan for Mundy Township.

Objectives

- Create a fund for acquiring parcels, and development rights for such, of woods, brush, and wetlands that are part of the township's high-value natural areas
- Amend the Master Plan to preserve connections between natural areas and to improve trail and wildlife movement between areas.

Goal 4- Expand funding potentials and research outside opportunities. Objectives

- Submit finalized Mundy Township Parks and Recreation Plan to the Michigan Department of Natural Resources for approval.
- Research additional grant opportunities that may be available through the State of Michigan, foundations, and/or corporations
- Establish a means of acquiring funds through property taxes, donations, corporate sponsors, or a flat fee assessment.

Action Plan

The National Recreation and Park Association (NRPA) recommends that a park system for an individual community should be composed of a total of 6.25 to 10.50 acres of developed open space per 1,000 populations (Mertes and Hall, 1995). Michigan guidelines have adapted these standards to identify five categories of parks. They are:

- 1. Mini parks. Small areas in residential settings.
- Neighborhood parks. Parks of five to ten acres in size that serve as the recreational and social focus of a neighborhood with informal active and passive recreational opportunities
- School parks. These parks are determined by the location and size of the school and can serve a neighborhood or community function depending on the circumstances
- 4. Community parks. These parks focus on community-based recreation needs. They can also preserve open space and unique landscapes. Community parks are usually between 30 and 50 acres in size.
- 5. Large urban park. These parks have similar functions to community parks but often have more facilities, usually serve the entire community and are usually 50 -75 acres in size (MDNR, 2006).

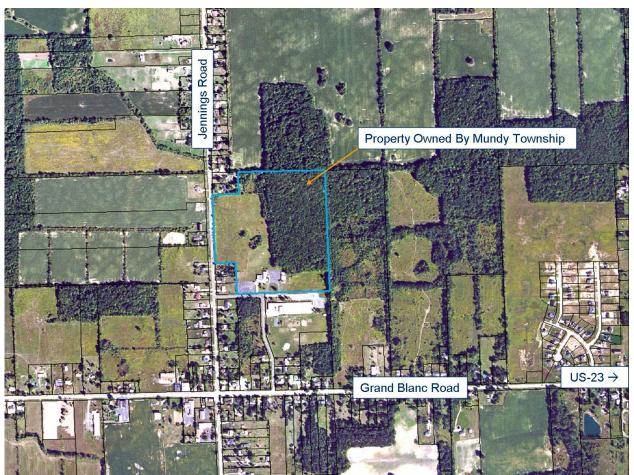
The purpose of these guidelines are to present park and recreation space standards that are applicable in Michigan for planning, acquisition, and development of park, recreation, and open space lands.

Since Mundy Township is in the infancy stage of park development, these standards provide a framework for recreation planning and park development. With the estimated 2005 population of 14,000, Mundy Township should have parklands consisting of 87.5 acres to 147 acres. The local situation can also impact these guidelines, and Mundy Township's recreational opportunities in adjacent communities are important. Creasy Bicentennial Park in Grand Blanc is a large urban park located close to the Mundy

Township's eastern border. Duplication of a similar facility does not seem a prudent way to use public funds.

Mundy Township does own approximately 39.8 acres of vacant land behind the township offices, and considers this an ideal area to establish their first park. The size of the parcel would meet the qualifications for a Community Park. The area currently consists of open brush land, woods, and low lands with a stream (see Figure 19). Mundy Township partnered with the Center for Applied Environmental Research in August 2007 to conduct a Rapid Ecological Assessment of the first Mundy Township Park. The summary of these findings is included in Appendix E.

Figure 19



Survey results support the idea of a centralized park, and the amount of land is suitable for amenities desired of residents. Suggested uses of this land include walking trails with mile markers (also ADA compliant), ball fields, a pavilion/picnic area, a children's playground area, and a preserved open space area. A preliminary design for this park has been prepared as a volunteer project by Luke Boone, an Eagle Scout and township resident. A schematic map (Figure 20) shows Mr. Boone's plan for how the land can be utilized. This general plan incorporates both active and passive recreation activities along with walking trails. Appendix E presents a preliminary cost estimate for trail preparation and the construction of 3 benches.

Construction of this community park will be the primary action component in Mundy Township's first Parks and Recreation Plan. The township undertook a design process with public input based on Mr. Boone's initial plan, and held a public visioning session for the first Township Park. Technical assistance was provided by the Center for Applied Environmental Research (CAER) and the National Park Service, Rivers, Trails, and Conservation Assistance Program.

Proposed Mundy Township Park Map Soccer **Tennis** Legend Baseball Trails Grass Playing Fields Township Hall Forested Playground Water Buildings Not to Scale Parking Lot

Figure 20 From original map by Luke Boone

Public Involvement Process for First Township Park

Members of the Parks and Recreation Committee worked with CAER to develop a mailing list to members fo the twonship and residents surrounding the proposed township park. Two mailings were sent out to 2,000 and 190 residents respectively, with support for printing and postage covered by CAER through the Greenlinks program

and members of the Parks and Recreation Committee. On September 6, 2007 the community gathered to envision their first park.

Approximately 30 residents gathered and talked with CAER and National Park Service staff about the parks and recreation plan and possibilities for the first park. The evening began with a tour of the park site, which is adjacent to the township hall. A student from the Earth and Resource Science Department at the University of Michigan – Flint, presented the work he and his classmates did in creating the parks and recreation plan. A CAER staff then presented on the ecological significance of the park and the findings of the rapid ecological assessment. Participants were divided into four groups; each given a large aerial photograph of the park parcel and scale pictures of pavilions, play structures, ball fields and stickers to mark where they would like to see amenities in the park. After a brief design session each group presented their "perfect" park to the audience. Mark Weaver from the National Park Service highlighted common themes between the four designs and clarified features that would make the park unique. Appendix E includes the four plans developed at the meeting, and the first concept plan created by Mark Weaver of the National Park Service. The first concept plan was reviewed by the parks and recreation committee, a second concept plan was created based on their comments. Figure 21 shows the second concept plan park plan created by Mark Weaver. The concept park plan will be reviewed by the larger community during the park and recreation plan public comment period. The park development will be conducted in phases, beginning with walking trails. Funding strategies specific to the first township park are included in Appendix E. The park development will be conducted in phases, beginning with walking trails.

The Parks and Recreation Committee will also undertake the initiatives identified in the recommendations section during the planning period to encourage expanded recreational opportunities in Mundy Township.

Figure 21

1 inch equals 236 feet

Mundy Township Conceptual Park Plan BERM / SEATING Made Possible through the Generous Support of the Ruth Mott Foundation. Created by Mark Weaver, National Park Service Rivers, Trails and Conservation Assistance Program

in partnership with the

Center for Applied Environmental Research, 2007

Adoption Plan

[This section of the plan will show the date, location, and process involved in officially adopting the Parks and Recreation Plan. This should be drawn up by an attorney.]

References

Alaimo, Katherine, et al., 2006. *Design Guidelines for Active Michigan Communities*, Michigan Governor's council on Physical Fitness, Sports, and Health.

Center for Applied Environmental Research (CAER). 2006a. Swartz Creek Watershed Management Plan.

Center for Applied Environmental Research (CAER). 2006b. *Genesee Land Network-Land Use Maps.*

http://www.geneseelandnetwork.org/sprawl/downloads/landusemaps.html Accessed February 1, 2007.

City – Data.com. 2005. *Michigan – Climate.* http://www.city-data.com/states/Michigan-Climate.html. Accessed January 25, 2007.

Genesee County Metropolitan Planning Commission Housing Starts (GCMPC). 2007a http://www.co.genesee.mi.us/gcmpc-plan/Files/Docs/2005%20building%20permits.pdf

Genesee County Metropolitan Planning Commission (GCMPC). 2007b *Genesee County Regional Trail Plan 2007.*

http://www.co.genesee.mi.us/gcmpc-

<u>plan/Files/Docs/Trails/April%202007%20Trail%20Plan%20DRAFT%20standard%20siz</u> e.pdf

Greenway Collaborative, Inc. 2003. *Meridian Township Greenspace Plan*. http://www.greenwaycollab.com/MTGP.htm

Hill-Rowley, R., E. Clark, and L. Sanker, 2006. *Guiding Growth in Mundy Township, Michigan.* Papers of the Applied Geography Conferences, 29: 263 -271.

Hyde, Daria. 2006. *Potential Conservation Areas Assessment*. GLS Greenlinks http://www.flintriver.org/greenlinks/assets/PDFs/PCA Brochure.pdf

Interagency Committee for Outdoor Recreation in the Washington State Department of Community, Trade and Economic Development. 2005. *Planning for Parks, Recreation, and Open Space in Your Community.*

Mertes, J.D. and J.R. Hall. 1995. *Park, Recreation, Open Space and Greenway Guidelines*. Alexandria VA: National Recreation and Park Association

Michigan Department of Natural Resources Grant Management (MDNR). 2006. Guidelines for the Development of Community Park, Recreation, Open Space, and Greenway Plans. Michigan Natural Features Inventory (MNFI), 2002. 2002 Oakland County Potential Conservation Natural Areas Report. Oakland County Planning and Economic Development Services.

Michigan State University, Dept. of Geography (MSU) 2005. *Growing Season Length and Frost.*

http://www.geo.msu.edu/geo333/growseason&frost.html . Accessed January 25, 2007.

Municipal Systems Consulting, 2001. Master Plan Update: 2001.

Partners-In-Planning Program of the Monroe County Planning Department. 2005. 2005 Ida Township Recreation Plan.

Pijanowski, Bryan C., 2006. *Afforestation Patterns in the Upper Midwest, USA*. IUFRO Landscape Ecology Conference, Locorontondo, Bari (ITALY).

Rowe Engineering. 2006. City Swartz Creek 5-year Parks and Recreation Plan.

Spicer Group Inc. 2005. Davison Area Community Plan.

Spicer Group Inc. 2006. *Grand Blanc Parks and Recreation Commission Five Year Master Plan 2007-2012.*

<u>Surveymonkey</u>. March 17, 2007 <u>http://www.surveymonkey.com/</u>.

University of Illinois at Urbana-Champaign.2003. *Master Plan for Parks and Recreation for Village of St. Joseph, Illinois.*

U.S. Census Bureau. 2007. *Mundy Township, Genesee County Michigan*. http://factfinder.census.gov/. Accessed January 27, 2007.

U.S. Census Bureau. 2007. *Populations for Minor Civic Divisions in Michigan (1990-2000)*. http://67.36.22.3/gcmpc-plan/Census%20Profiles/miscCENSUS/1990 2000POPCHANGES.pdf. Accessed January 29, 2007.

U.S. Census Bureau. 2007. *Profile of General Demographic Characteristics: 2000.* http://www.co.genesee.mi.us/gcmpc-plan/Census%20Profiles/Townships/Mundy%20Township.pdf. Accessed January 29, 2007.

U.S. Census Bureau. 2007. *Profile of Selected Economic Characteristics: 2000*. http://www.co.genesee.mi.us/gcmpc-plan/Census%20Profiles/Townships/Mundy%20Township.pdf Accessed January 29, 2007.

U.S. Census Bureau. 2007. *Profile of Selected Housing Characteristics: 2000*. http://www.co.genesee.mi.us/gcmpc-plan/Census%20Profiles/Townships/Mundy%20Township.pdf
Accessed January 29, 2007.

U.S. Census Bureau. 2007. *Profile of Selected Social Characteristics: 2000*. http://www.co.genesee.mi.us/gcmpc-plan/Census%20Profiles/Townships/Mundy%20Township.pdf
Accessed January 29, 2007.

Vogt, Christine A. 2006 *Conservation Needs Assessment*. GLS Greenlinks http://www.flintriver.org/greenlinks/assets/PDFs/CNA Book.pdf>

Appendix A

Mundy Township Parks and Recreation 2007 Residential Survey "Preparing Mundy for Saturday"

Mundy Township parks and recreation facilities have the exciting potential for providing fun, interesting, and healthy recreation for our residents, and at the same time for increasing the enjoyment of community life. As we explore the possibilities, we need to know what is important to our citizens. Please answer the following questions and add any suggestions you might have.

Your input is vital!

1. How many people in your hous	sehold fall into the following age gro	oups?
		10-49 50-69 70+
years old	, =	
2. Approximately where do you liSouth of Grand Blanc Rd, east ofNorth of Grand Blanc Rd, east ofSouth of Grand Blanc Rd, westNorth of Grand Blanc Rd, west ofNorth of	of U.S. 23 of U.S. 23 of U.S. 23	
3. How important is outdoor recreaseVerySomewhatNorth	eation to you and your family? t veryNo opinion	
4. What recreational activities do	you take part in outside of Mundy	Township?
Baseball/softball	Sledding	Exercising pet
Football	Fishing	Fitness trails w/ mile
markers		
Soccer	Swimming	Equestrian trails
Basketball	Visiting playgrounds	Athletic club
member		
Tennis	Biking	Home exercise
Hockey/outdoor skating	Walking/hiking	Other
Skateboarding	Jogging/running	None
5. In which cities are these activity	ties located?	
Grand Blanc	Swartz Creek	Flint
Fenton	Lake Fenton	Other
6. If you do not participate in any	recreational activities, what barrier	s prohibit you from doing so?
Limited Physical Mobility	Lack of places or facilities ne	
Lack of time	Health problems prohibit me	
Not convenient for me	Lack of sidewalk or trails nea	ır my home
Don't like outdoor or physical ac	etivity	
7. Which parks and recreation an	nenities would you like to see in Mu	ndy Township?
Baseball/softball fields	Baseball/softball leagues	Pavilions
Soccer fields	Soccer leagues	Pet park

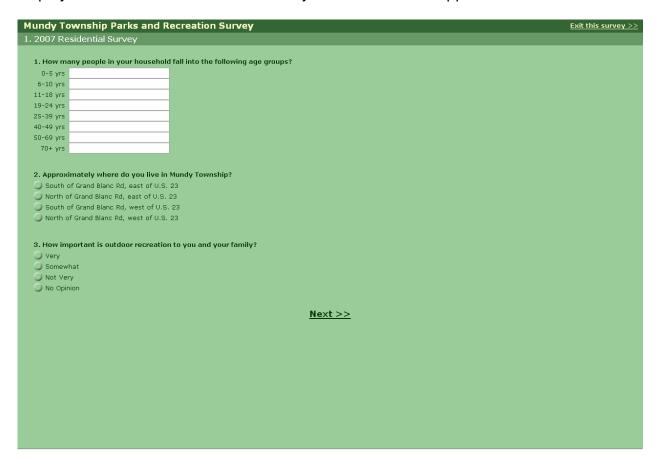
Basketball courtsHorseshoe areaTennis courtsSand Volleyball courtsMultipurpose fields markers	Sledding hi Outdoor sk Benches/pi Equestrian Children's p	ating rink cnic tables	Community center BBQ areas Paved pathways Walking trails Fitness trails w/ mile
8. Would you favor one centralizedOne centralized park	d park or multiple Multiple sm		ndy Township?
9. How far are you willing to travel0-1 mile1-2 miles3-			
10. If trails are a priority to you and communities?	d your family, how	have you utilized th	e trails in nearby
Walk/hike	Mountain b	ike	Bicycle
Run/jog	In-line skat	ng	Other
11. Please rate your approval for c Neighborhood Communities	Agree	Neutral	Disagree
Schools			
Community Destinations			
13. Please rate the importance of t	he following aspe	ct of conserving gre	en and open space.
	Very important	Somewhat important	Not important at all
Protect and conserve water quality	important	important	at all
Protect and conserve air quality			
Provide healthy living and quality of life			
Provide access to outdoor			
recreation activities			
Provide habitat for a diversity of			
plant and animal species			
14. Mundy Township would like to meeting place for community activFestivalsHoliday celebrationsCommunity fund raisersSummer activities for children			

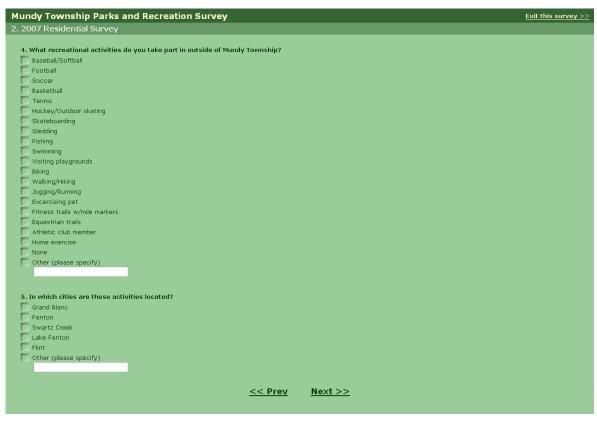
User fees (1/4 mill rec Flat fee ass	annual pass) reational prope sessment ors/corporate s	rty tax	ks and recreatio	n should be i	funded?	
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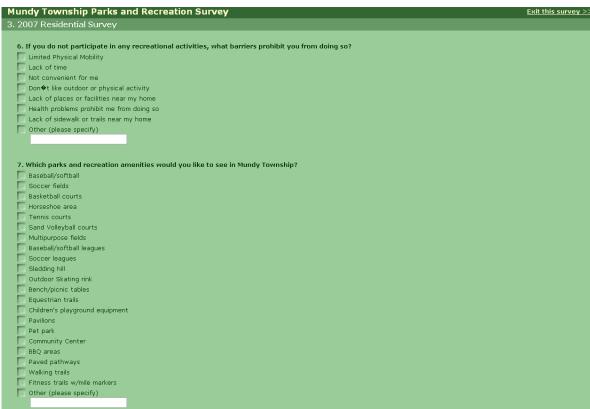
Karen Gawron Mundy Twp., Trustee 3478 Mundy Ave. Swartz Creek, Mi 48473

Appendix B

Research to find which online source gave us the best opportunities to put together an appealing and easily accessible survey resulted in the selection of www.surveymonkey.com as our best available online resource. It allowed us to do everything we needed to do for our online survey, and was able to be easily linked to websites where residents could be directed. It was also decided that a stand alone web site for the project that could provide a front door for the survey and then provide access to the results was the most efficient way to operationalize the process. We acquired the domain name www.mparks.org. For this purpose and the website is hosted by a private vendor for six months. These services were paid for from funds supporting the RPL 411 course in Earth and Resource Science at the University of Michigan – Flint. The introductory page for this website is included in the plan as Figure 7. Appendix B displays screenshots of the online survey in the form that it appears on the web site.







8. Would you favor one centralized park or multiple smaller parks for Mundy Township? One Centralized Multiple smaller parks park Multiple smaller parks park parks 9. How far are you willing to travel for recreation in Mundy Township? 0-1 mile 1-2 miles 3-6 miles 7-9 miles 10- miles 10. If trails are a priority to you and your family, how have you utilized the trails in nearby communities? Walk/hake Run/gog Mountain bike In-line stating Bicycle Other (please specify)	Mundy Tow	nship Parl	s and Red	creation Su	irvey					<u> </u>	xit this survey >>
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Holiday cele	brations						
Community	fund raisers						
Summer act	ivities for child	iren					
Other (pleas	se specify)						
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) Flat fee assi							
	ors/corporate s	sponsors					
) Combination							
) Undecided/c	don�t know						
) Not at all							
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Appendix C

Table C1

Local Recr	eation Site	s: Mundy	
Name	Location	Type(s) of Recreation	Features
Carman Ainsworth Middle School	109 West Maple Rd.	Outdoor Athletics	Football field, Track, Tennis Courts, and Soccer
Rankin Elementary School	3459 Mundy Avenue	Outdoor Athletics	Pavilion, Swings, Basketball Courts, and a Baseball Diamond.
Morrish Elementary School	5055 Maple Avenue	Outdoor Athletics	Several Baseball Diamonds, Soccer Field, Small Basketball Court, and a Playground
Seifert's Golf Plus	2193 W. Grand Blanc Rd.	Golfing	Golf Course and Driving Range.
Genesee Valley Tennis Club	5431 Hill Rd.	Tennis	Tennis Courts
Bordine Nursery	9100 Torrey Rd.	Landscaping and Horticulture	One of the Largest Greenhouses in the Area with an Outdoor Landscape Center
Base Camp Challenge Center	G- 5081Torrey Rd.	Team Building	High Ropes Course and Rock Walls
Curves Fitness Center for Women	6004 Torrey Rd.	Fitness and Exercise	Machine Resistance and Aerobics Room
US 23 Drive-In Theater	5200 Fenton Rd	Movie Watching	Outdoor Drive In Theater
Genesee Field House	7383 Grand Parkway	Soccer, Flag Football, ect.	Large Indoor Turf
Buck, Jessie H. Farmhouse	6095 Baldwin Rd.	Historic	Centennial Farmstead.
Mt. Hope Cemetery	Cook Rd.	Historic	
S. Mundy United Meth. Church	10018 Linden Rd.	Worship and Fitness Center	Gym Equipment

Other Loca	al Recreat	ion Sites	
Name	Location	Types of Recreation	Features
Winshall Park	Swartz Creek	Baseball, Sledding, Volleyball, Basketball, and Barbequing	Fitness Course, Picnic Facilities, Courts, Ball Diamonds, Tot Lot, Grills, Restrooms, and Pavilions.
Elms Park	Swartz Creek	Skating, Sledding, Horseshoe Games, Picnics Soccer, Tennis, Baseball, and Basketball	4 Pavilions, Playgrounds, Sledding Hill, Skating Pond, Horseshoe Pits, Baseball Diamond, Tennis Courts, and Picnic Tables
Swartz Creek High School	Swartz Creek	Outdoor Athletics	Outdoor Track, Football Field, Restrooms, and Baseball Diamond
Calvary Church of Christ	Swartz Creek	Baseball	Baseball Diamond
Messiah Luth. Church	Swartz Creek	Baseball	Baseball Diamond
Sport Creek Race Track	Swartz Creek	Horse Racing/Gambling	General Admission with a Club House
Amphitheater	Swartz Creek	Live Performances	Seating for 1200
Bicentennial Park	Grand Blanc	Baseball, Softball, Tennis, Volleyball, Little Leagues, Church and Large Group Gatherings, Skating, Fishing, Barbeques, Horseshoe Games, Sledding, and Nature Viewing	Baseball Diamonds, Softball Fields, Tennis Courts, Volleyball Nets, Playground, Trails, Lake with Access Site, Barbeques, Horseshoe Pits, Sledding Hill, and Pavilions.
Physicians Park	Grand Blanc	Kid's entertainment, Picnics, Walking, Ice Skating, Football, and Soccer.	Playgrounds, Ice Rink (Seasonal), Picnic Area, and Walking Path.
Rust Park	Grand Blanc	Scenic Viewing (Thread Creek), Nature Watching, Picnics, Kid's Entertainment, Baseball, Softball, Basketball, and Tennis	River Adjacency, Paths, Nature Trails, Tennis Court, Ball Diamonds, Picnic Area, and Playground.
Skate Park	Grand Blanc	Roller Blading, and Skate Boarding.	Skate Course.
McFarlan Park	Grand Blanc	Nature Viewing, Walking	Trails

Other Loca	al Recreat	ion Sites, contin	ued
Name	Location	Types of	Features
		Recreation	
Genesys Trails	Grand Blanc	Running, Jogging, Walking, Nature Viewing, and Picnics	Trails and Benches Along Scenic Pathways
Schram Park	Grand Blanc	Undetermined	Undeveloped Green Space
Senior Activity Center	Grand Blanc	Senior Activities, Classes, and Events.	Meeting Room, Craft Room, Smaller Rooms, and a Kitchen
Silver Lake Park	Fenton	Swimming, Beach Going, Picnics, Group Meetings, Skiing, Ice Fishing, Volleyball, and Walking	Pavilions, Beach, Volleyball Nets, Ski Jumps and Slalom Course, and Restrooms
Camp Copneconic	Fenton	Team Building, Educational Courses, Fishing, Hiking, Camping, and Youth Programs	Lake, Cabin Facilities, and Trails
Lake Fenton Access	Fenton	Fishing, Snowmobiling, Boating, Water Sports, and Jet Skiing	Outhouse Facilities, Two Boat Launches, and Parking Area
Lake Ponemah Access	Fenton	Fishing, Snowmobiling, Boating, Water Sports, and Jet Skiing	Outhouse Facilities, Two Boat Launches, and Parking Area
Fenton Gazebo	Fenton	Outdoor Events, Weddings, ect.	Parking Area, and Gazebo Along the Shiawassee River
Fenton Hotel	Fenton	Fine Dining and Historical Value	
Linden Park /Byram Lake	Linden	Picnics, Swimming, Beach going	Grills, Swim area, Public Beach

Table C2

Genesee C	County Re	creation Sites	
Name	Location	Type(s) of Recreation	Features
Mott Lake	Genesee Township	Fishing, Hunting and Boating	Boat Launch and Hunting Blinds
Timberwolf Campground	Mott Lake Genesee	Fishing, Boating, Camping, Swimming and Hunting	Boat Access, Shelters, Swim Areas, Campsites, and Reserved Waterfowl Hunt Draws
Wolverine Campground	North Center Rd. Flint	Swimming, Fishing, Camping, and Boating	Swim Areas, Boat Launch, and Campsites
Buell Lake County Park	North Genesee Rd, Millington	Swimming, Fishing, and Boating	Boat Launch
Ligon Nature Center	5213 East Farrand Rd. Clio	Nature Study, School Field Trips, and Team Building	Low Ropes Course, Trails, Nature Center, and Pavilions
Hogbacks Area	Eastern Genesee county along Lapeer Border	ORV Courses	Extensive Riding Trails
Splash pad park and Bluebell Beach	5500 Bray Rd. Flint, MI	Swimming and waterpark	Lifeguards, Public Restrooms, Beach, and Water Amusements
Goldenrod Disk Golf Course	6405 Irish Rd. Davison, MI	Disk Golf	18 hole Disk Couse
Cross Roads Village and Huckleberry Railroad	6140 Bray Rd. Flint, MI	19th Century Railroad and Family Entertainment with Christmas Light Shows.	Railroad, General Store, and other Historic Structures.
Mounds Off Road Vehicle Area	6145 E. Mt. Morris Rd. Mt. Morris, MI	ORV Courses	1.8 miles of Trails.
For Mar Nature Preserve	2142 N. Genesee Rd.	Nature Study, and School Field Trips	Nature Center, Trails, and Wetland Study Areas.

Table C3

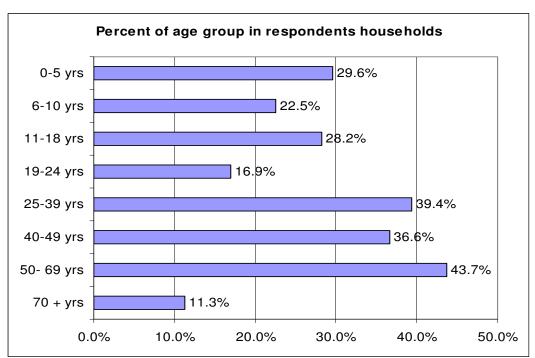
Regional Recreation Sites						
Name	Location	Type(s) of Recreation	Features			
Holly State Recreation Area	Holly	Biking, Bird Watching, Fishing, Beach Going, Hiking, Outdoor Group Meetings, Picnics Camping and Canoeing	Trails, Campsites, Several Lakes, and Beaches.			
Seven Lakes State Park	Holly	Biking, Bird Watching, Fishing, Beach Going, Hiking, Outdoor Group Meetings, Outdoor Grilling Hunting and Canoeing	Trails, Pavilions, Store, Chain of Lakes, Hunting Zones, and Beaches			
Ortonville State Park	Northwest Oakland County	Camping, Picnics, Small Craft Boating, Swimming, and Fishing	Picnic Areas, Playgrounds, Accessible Waters, and Campsites			

Appendix D

The parks and recreation Committee survey was taken by 73 people, both on line and hardcopy. Their responses shown in this section by graphs which are further interpreted. Each graph shows the question, the response categories provided and the percent of people who put a response in each category. It is important to note, however, that people were not prevented from answering in more than one category, so totals almost never add up to 100%. Also, the percentages are based on the number of people who answered each questions, not the total number of people that took the survey.

1. How many people in your household fall into the following age groups?



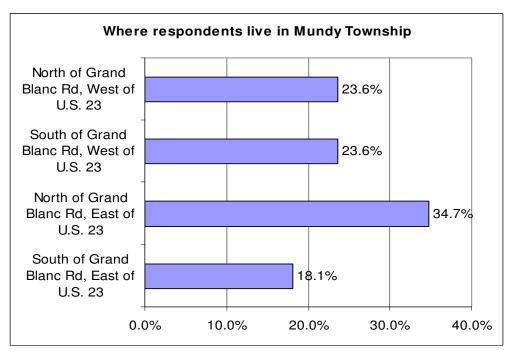


The age of Mundy Township residents is an important demographic for the Parks and Recreation plan because it indicates residents' levels of activity. This shows what types of parks and recreation facilities are needed, and what facilities need to be planned in the future. The first question in the survey asks for the number of people in each

household based on eight age groups. As seen in Figure D1, the majority of adults are in the 25-49 year old demographic. These are typical childbearing/rearing ages. The people falling into the lower age brackets are likely the children of the previous group. These findings indicate a primary need for parks and recreation facilities geared towards active adults and their children.

2. Approximately where do you live in Mundy Township?





Question two was asked to assert the estimated location of respondents. The results were evenly distributed throughout the township, with the largest group coming from north of Grand Blanc Road and East of U.S. 23.

3. How important is outdoor recreation to you and your family?

Figure D3

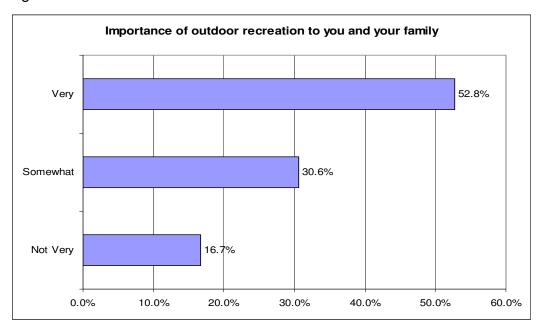
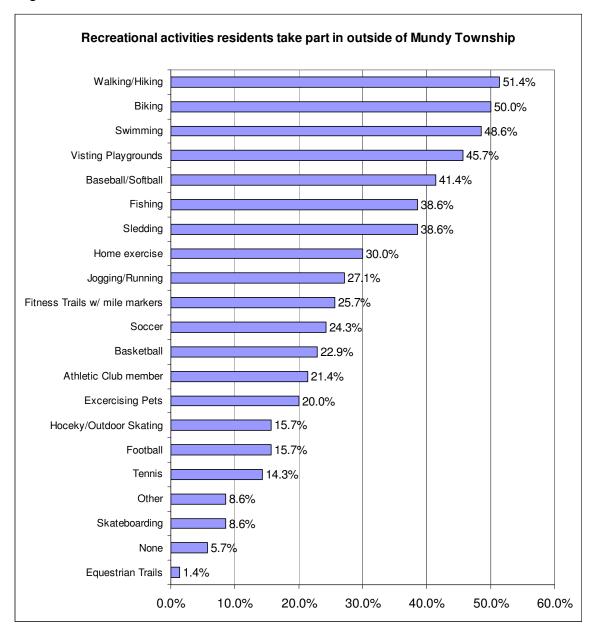


Figure D3 is quite clear in showing approximately 54% of respondents think outdoor recreation is very important, and approximately 31% think it is somewhat important. Approximately 85% of respondents therefore find some level of value in outdoor recreation, showing a need for parks and recreational facilities in the township.

4. What recreational activities do you take part in outside of Mundy Township?

Figure D4

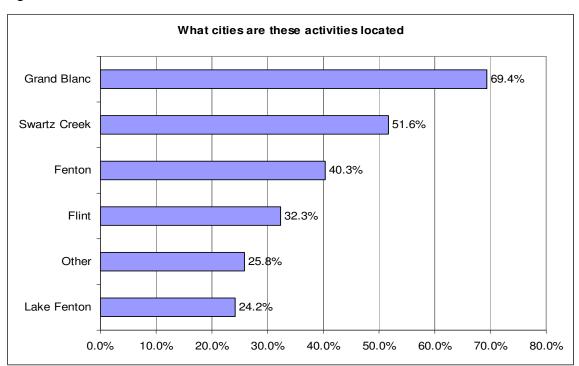


The response to this question clearly shows multiple responses in different categories. The responses can best be interpreted by grouping like activities into three important groups. First, there is a lot of support for low impact recreation such as walking/hiking, visiting playgrounds, sledding, and exercising pets.

Second, many respondents favor higher impact activities, such as biking, jogging, and running. Third, and finally, a large aggregate group is interested in very high impact sporting activities such as tennis, football, basketball, soccer, baseball, and softball. The needs of the first two groups can be met by a multiuse trail system on parkland and throughout Mundy Township, a conclusion supported by the ninth answer category of fitness trails with markers. The needs of the third group can be satisfied with sports fields and courts.

5. In which cities are these activities located?

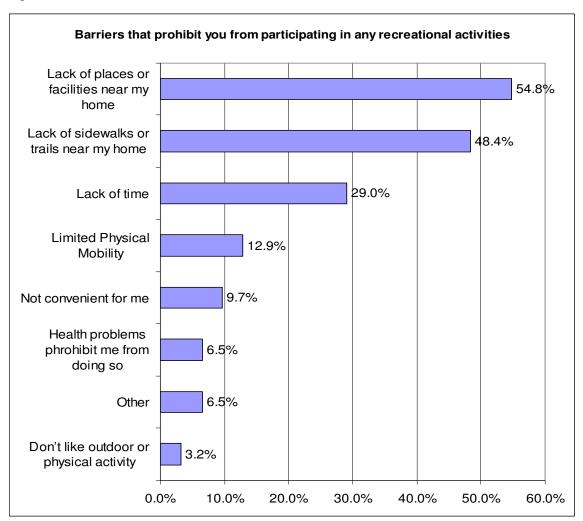




Since Mundy Township has no parks, trails, sports fields, or courts, question five sought to discover where the residents of Mundy Township go for recreation. The top two cities were Grand Blanc and Swartz Creek followed by Fenton and Flint.

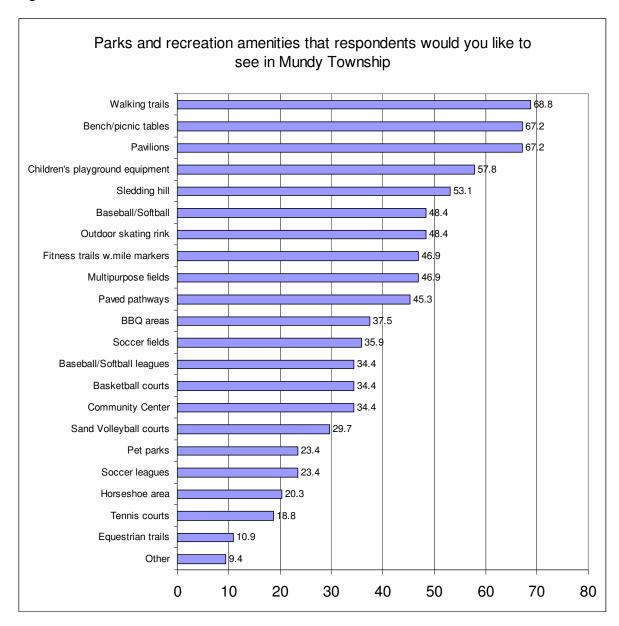
6. If you do not participate in any recreational activities, what barriers prohibit you from doing so?

Figure D6



When asked what barriers prohibited respondents from participation in recreational activities, a lack of facilities was the most common response, while lack of sidewalks was a close second. This again highlights the need for the development of parks and recreation facilities in the township. Which parks and recreation amenities would you like to see in Mundy Township?

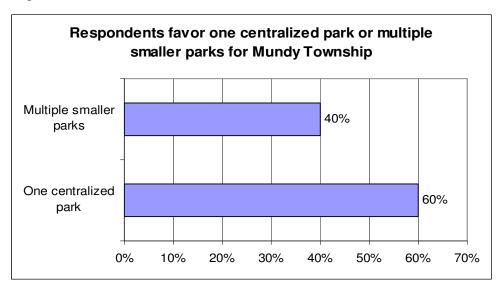
Figure D7



The data in this graph are best understood by grouping like activities, much as was done in Figure D4. Walking trails clearly top the list of recreation amenities residents would like to see. This category can be combined with fitness trails and paved pathways, which makes multiuse trails even more important. The largest grouping overall, however, is for activities like benches, picnic tables, pavilions, playgrounds, BBQ areas, and community centers. This indicates that people want an outdoor gathering place, the type of thing that parks traditionally provide. The next major group of amenities is for those interested in very high impact sports activities and mirrors

interest in those activities shown in Figure D4. Would you favor one centralized park or multiple smaller parks for Mundy Township?

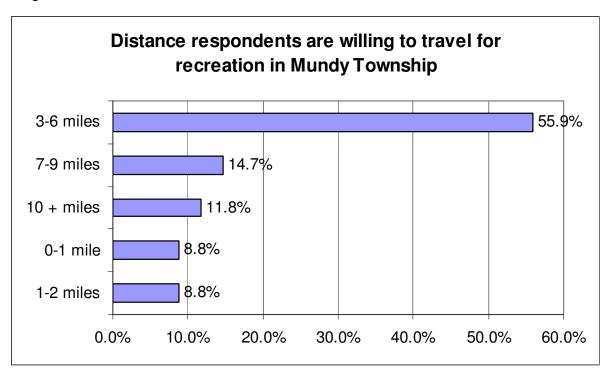
Figure D8



Question eight was asked to determine if the respondents would rather have one centralized park or multiple smaller parks for Mundy Township. The results showed that 60% of respondents would rather have one centralized park, only 40% preferred multiple smaller parks. The important thing is that 89% of people taking the survey responded to this question, showing a high level of interest in having park(s) in the township.

7. How far are you willing to travel for recreation in Mundy Township?

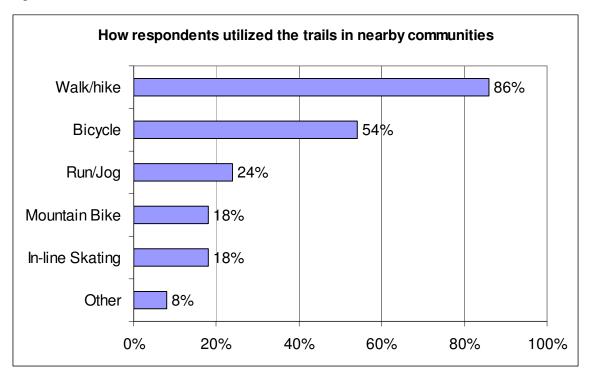
Figure D9



Question nine asked how far residents were willing to travel within Mundy Township for recreation. The results show the majority of respondents are willing to travel 3-6 miles. This will be helpful when planning the location of the parks within the township.

8. If trails are a priority to you and your family, how have you utilized the trails in nearby communities?

Figure D10



In question ten, the survey asked how people use trails in the surrounding communities. The results show a majority of residents use these trails for either walking/hiking or bicycling. This information is helpful because it provides feedback as to what kind of trails the community would like to see implemented in Mundy Township.

11. Please rate your approval for connecting trails or pathways within Mundy Township to: neighborhood communities, schools, and community destinations.

Figure D11

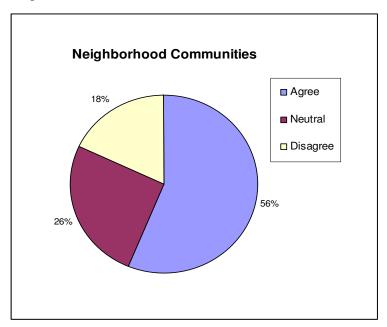


Figure D12

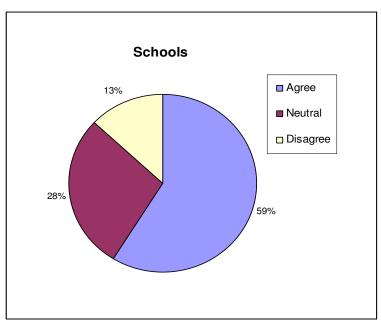
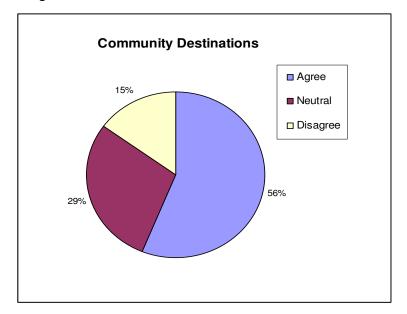


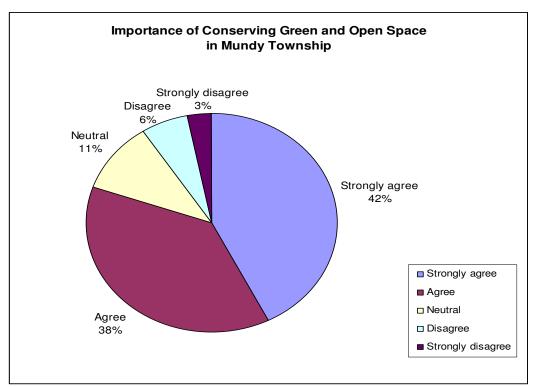
Figure D13



Question eleven asked people their opinions on connecting trails or pathways in Mundy Township to neighborhood communities, schools, and community destinations. According to the results from the survey, most people would like to see trails or pathways connected to all three of these areas. The pie charts above show at least 55% of the respondents "agree" that each of these areas should be connected to available trails or pathways. This would allow easy accessibility to multiple areas throughout the township.

12. Do you feel conserving green and open space within Mundy Township is important?





In question twelve, the survey asks the respondents if they think conserving green and open space is important. Based on the results from the survey, 42% of the respondents "strongly agree" and 38% "agree" that conserving green and open space is important. Only 9% of the respondents "disagree" or "strongly disagree" that it is not important to conserver these areas. This data provides information that the respondents would like to see these areas kept environmentally safe and not include human development.

13. Please rate the importance of the following aspect of conserving green and open space.

Figure D15

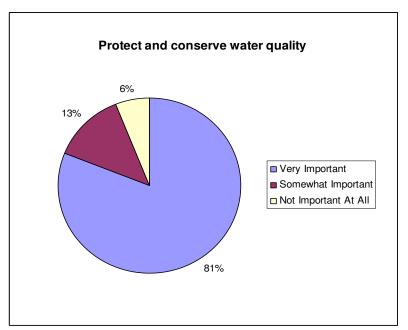


Figure D16

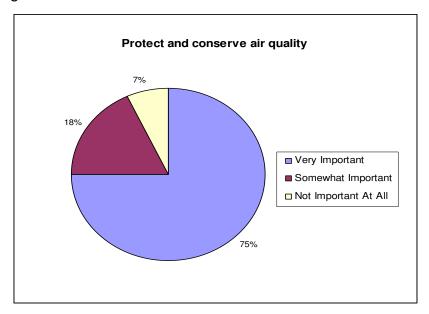


Figure D17

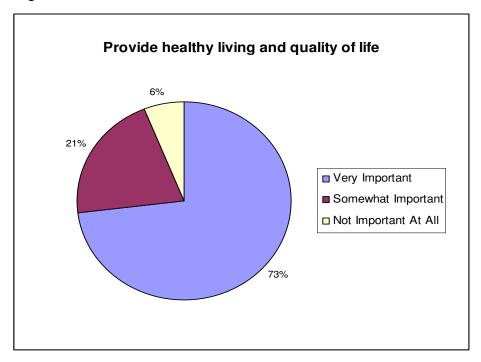


Figure D18

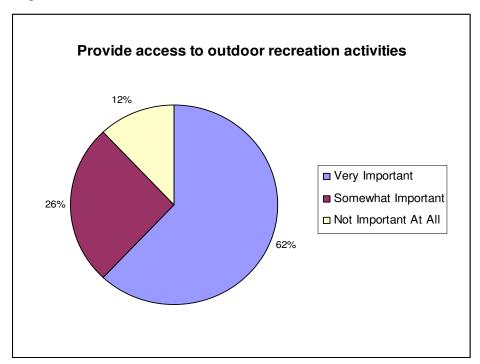
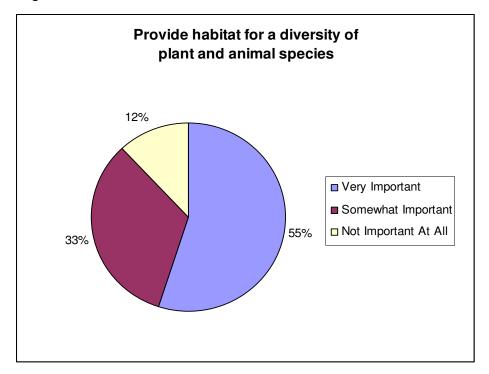


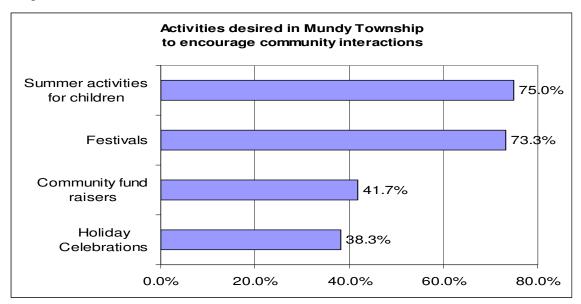
Figure D19



Question thirteen is a continuation of question twelve. The survey asks the respondents about the importance of the different aspects of conserving green and open space. The pie charts all show a majority of the respondents who feel it is "very important" or at least "somewhat important" to protect and conserve water quality and air quality, to provide healthy living and quality of life, to provide access to outdoor recreation activities, and to provide habitat for a diversity of plant and animal species. In contrast, very few respondents felt these aspects were "not important at all."

14. Mundy Township would like to encourage community interaction by establishing a centralized meeting place for community activities, would you be interested in the following:

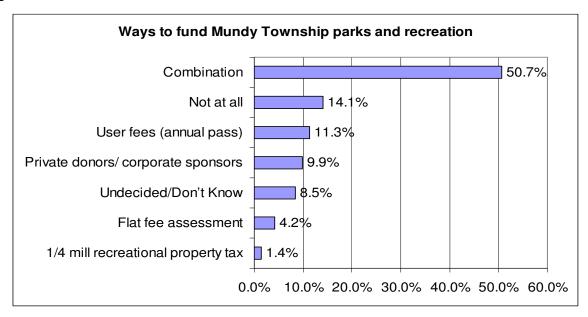
Figure D20



Question fourteen asks the respondents how they would like to encourage community interaction. Most respondents believe summer activities for children and festivals would be the best ways to achieve community interaction. Overall, the table above shows that people are willing to get out and interact with one another for multiple activities if a meeting place becomes available.

15. How do you feel Mundy Township parks and recreation should be funded?

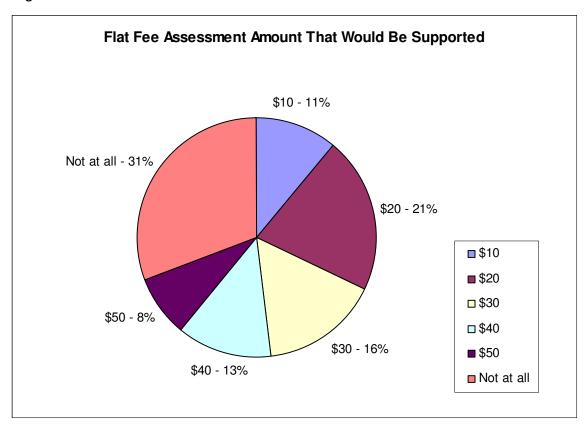
Figure D21



Question fifteen asks how Mundy Township parks and recreation should be funded. The results show that over half of the respondents think a combination of user fees, a ½ mill recreational property tax, flat fee assessments, and private donors/corporate sponsors should be used to fund the parks and recreation. The next choice suggested by the respondents was to have simple user fees (annual passes) to fund the parks and recreation. However, 14.1% of the respondents felt the Mundy Township parks and recreation should not be funded at all, while 8.5% of the respondents said they didn't know or undecided.

16. Would you support a flat fee assessment per residence and if so, in what amount? This fee would be included on local property taxes for parks and recreation in Mundy Township.

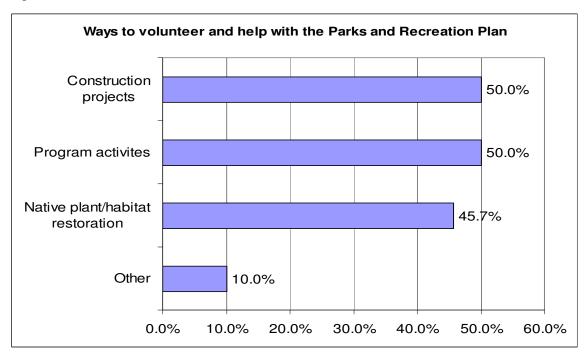
Figure D22



Question sixteen asks respondents if they would support a flat fee assessment per residence that would be included on local property taxes for parks and recreation, and if so, how much the public is willing to pay. An overwhelming 69% of the respondents said they would support a flat fee assessment, with the amounts ranging from \$10, \$20, \$30, \$40 and \$50. Only 31% of the respondents would not support a flat fee assessment at all.

17. Would you or your group be interested in volunteering to work on building our community's parks and recreation programs? If so, please check your area of interest:

Figure D23



In question seventeen, the survey asks if the respondents would be willing to volunteer to work on building the community's parks and recreation programs. The response rate on this question was much lower than it was on the other questions in the survey. However the people who responded to question seventeen appear interested in volunteering in any way they can.

Appendix E

Bench Materials

Single Bend	<u>ch (</u> 6'x21"x18")	Cost per Item		Total Cost
Post	4x4x48 – qty. 5	\$9.00		\$45.00
Sides	2x4x8- qty. 3	3.70		11.10
Top	5/4x12- qty. 2	22.50		45.00
Bolts	3/8x5- qty. 6	2.50		15.00
Screws	3 ½"- qty. 2lb			5.00
Cement	60 lb. – 2 bags	3.50		7.00
	_			\$ 138.10
			Tax	8.30

Total \$146.40

Double Bench		Cost per Item		Total Cost
Back	5/4x6/12- qty. 5	\$22.50		\$112.50
Bench Support	2x6x8- qty. 3	8.00		24.00
Sides	2x4x8- qty. 7	3.70		26.00
Post	4x4x8- qty. 10	9.00		90.00
Screws	3 1/2"- qty. 3 lbs			15.00
Screws	2"- qty. 2 lbs			10.00
Bolts	Qty. 12			30.00
Cement	60 lb. – 4 bags	3.50		<u> 14.00</u>
				\$ 321.50
			Tax	19.29

Total \$ 340.79

Single Bend	<u>ch (</u> 4'x17"x18")	Cost per Item		Total Cost
Top	2x4x8- qty. 5	\$ 3.70		\$18.50
Legs	4x4x8- qty.1	9.00		9.00
Spacers	½"x3 ½"x9"-qty. 24			8.00
	(Plywood)			
Screws	2" & 3"			4.00
				\$39.50
			Tax	2.37

Total \$41.87

Trail Development	Cost
10' Wide Asphalt Trail w/ Clearing (Minor Grading)	\$75/linear foot
Boardwalk w/ handrails	\$240/linear foot

Funding Strategy

Ecological Assessment Summary

Site Overview

On August 6, 2007 two CAER staff, Gabriel Zawadzki and Sara McDonnell performed a rapid ecological assessment of land adjacent to the Mundy Township hall based on methods developed by the Huron River Watershed Council. Three ecosystems were identified and are shown in **Figure 1**:

- Forest
- Wetland
- Grassland/Shrubland (old agricultural field)

Together the three ecosystems found on the site imply that the land adjacent to Mundy Township Hall has a high ecological value. In addition, the Michigan Natural Features Inventory identify the forested section of the parcel to be a priority two conservation area for the Greenlinks area of Lapeer, Genesee, and Shiawassee counties.

The landscape of the site is gently rolling terrain with a few large boulders that are remnants of past glacial activity in lower Michigan. Human disturbances effect over 50% of the site and include the nearby township hall and parking lot, abandoned agricultural field and footpaths. Some soil compaction has occurred on the western third of the site as a result of past agricultural use. Invasive species are primarily located along the edges of footpaths and the forested area with some isolated pockets within the forest. Wildlife observed included deer tracks and browse, droppings, feathers, raptors, songbirds, frogs, toads, and snakes.

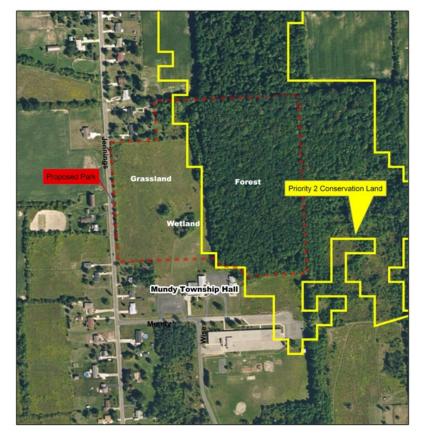


Figure 1: Location of proposed park and ecosystems

Wetland Ecosystem

A small wetland is located in the southeast corner of the old agricultural field and in the southern portion of the forested area. Several wetland indicators were identified including buttressed trees, stained trunks, and bare muddy ground. The soil appeared mottled gray with forested vegetation structure. There is partial (25-50%) human disturbance to the wetland area given the surrounding old field.

Vegetation types found are summarized below in **Table 1** with twenty total species of plants distinguishable.

Wetland Vegetation Type	Percent of wetland area	Species Identified
Native emergent	11-25%	Buttonbush
Native grasses	6-10%	Sedges
Native forbs	11-25%	Ferns
		Joe-pye weed
		Boneset
		Blue Vervain
		Mint
Native shrubs	6-10%	Willows
Native trees	11-25%	Maples
		Oaks
Invasive species	1-5%	Cattails

Table 1: Wetland Vegetation Summary

Forest Ecosystem

The eastern two-thirds of the site were classified as forest ecosystem. The general forest structure included a mix of tree sizes from greater than 10 inches in diameter to seedlings less than three feet high. Standing dead trees, large rotting logs, and buttressed trunks were noted throughout the site. Buttressed trunks and other wetland indicators were primairly in the southern half of the site and along the seasonal creek and pool. Soil varied from sandy to dark brown and a few glacial erratics (large boulders) were observed. The vegetation structure is summarized in **Table 2**.

A large majority of the overstory on the site are dead standing trees. Based on the current structure of the forest, it is estimated that oaks, elms and ash will begin to replace the larger maple, aspen and hickory stands.

Several species were identified and are summarized in **Table 3** with 50 total species distinguishable. Invasive species were found primarily along trails and edges of the forest and in isolated pockets in the forest interior. Approximately 25% of the forest is effected by the foot trail.

Tree Size	Percent of forest area	
Overstory (>10" dbh)	>50%	
Understory or small (>2- 10" dbh)	11-25%	
Saplings (<2", 3-15' tall)	25-50%	
Seedlings (<2" dbh, <3'		
tall)	6-10%	
dbh = diameter at breast height or 4 feet above base of tree		

Table 2: Forest Structure

Forest Vegetation Type	Species	Size (for trees only)
Tree	Ashes	Overstory & Seedling
	Aspen	Overstory
	Box-elder	Overstory
	Dogwood	Understory
	Elm	Understory
	Hickory	Overstory
	Red and Silver Maple	Overstory
	Sugar Maple	Understory & Sapling
	Hop Hornbeam	Overstory
	Black Maple	Understory
	Musclewood	Understory
	White Oak	Understory
	Red and Black Oak	Understory
Shrubs & Woody Vines	Gooseberries	
	Poison Ivy	
Herbaceous Ground	Гото	
Cover	Ferns	
	Geranium	
	Mayapple	
	Sedge	
	Solomon's seal	
	Trilliums	
Invasive Species	Autumn Olive	
	Common Buckthorn	
	Multiflora Rose	

Table 3: Forest Vegetation Summary

Of the non-tree species identified, 11-25% of the forested area is shrubs and woody vines, greater than 50% is herbaceous ground cover, and 11-25% is invasive species.

Grassland Ecosystem

This area was given lowest priority in the assessment given the township's desire to create a park on the site and the forest being identified by MNFI as having a high priority conservation value.

The western third of the site is grassland with a small stand of shrubs and wetland in the interior. Soil was not visible in this portion of the site due to the extensive grasses and forbs covering the area.

Native and non-native grasses were not identified to species level though strawberry and mountain mint were identified near the wetland. An additional visit is required to give a complete summary on the grassland ecosystem.

Next Steps

The rapid ecological assessment provides a snapshot at the ecological value of a site based on the number and types of species found. The rapid assessment was developed to determine if sites need further inventory and to help planners prioritize sites for protection. The Huron River Watershed Council is currently developing a scoring system to rank sites that are assessed. It is recommended that Mundy Township consider protecting the forest and wetland areas of the site given the findings of this assessment.

Group Designs of Park from Visioning Session

Group One



Group Two



Group Three



Group Four

